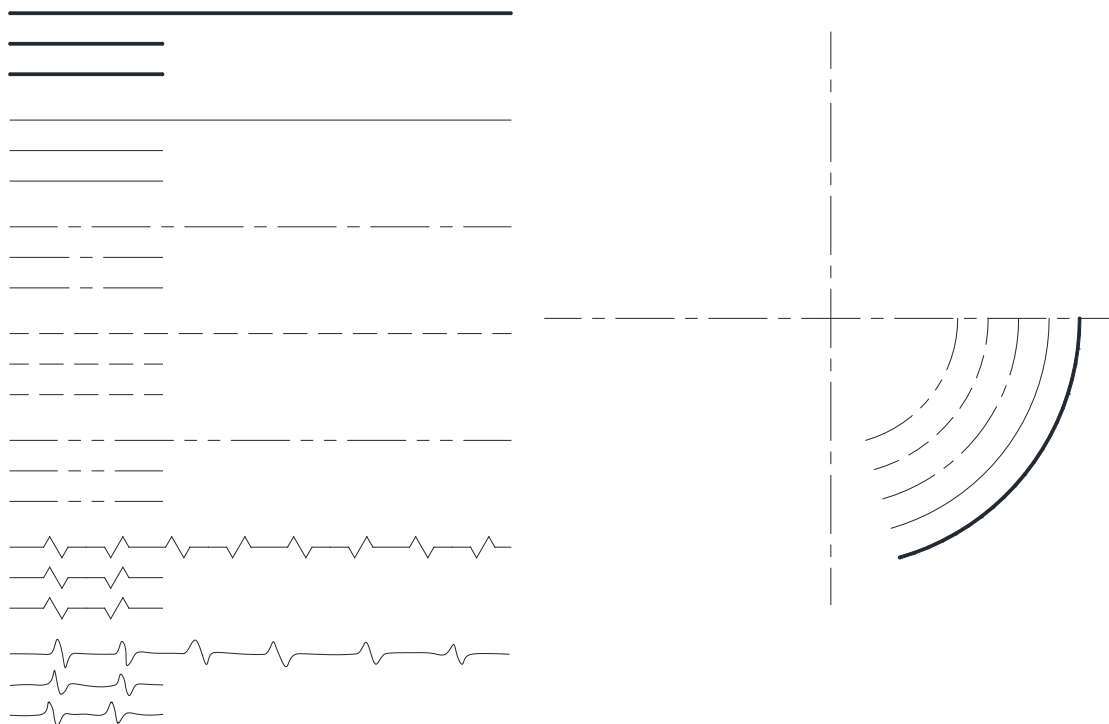


# 1. Munkalap

1. Fejezze be az előrajzolás szerinti vonalfajták ábrázolását! Ügyeljen a vonalvastagságra!



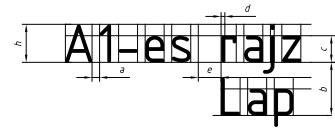
2. Rajzoljon merőleges egyenest az „e” egyenes „P” pontjába!



3. Ossa fel az „AB” szakaszt 2:3 arányban!



B típusú, álló alakú betűk, számok és írásjelek  
 Adatok:  $h=5$ ;  $c=3,5$ ;  $a=1$ ;  $b=7$ ;  $e=3$ ;  $d=0,5$



ILTEFH

NZXMY

AVWK

JUCGOQ

DPRBS

174

3506982

$7\frac{4}{7}$   $50^{+0,5}_{-0,2}$

itvwxyz

tfjy

cdqgabp

rnqhueos

!?"IR □ \ ▷ | °

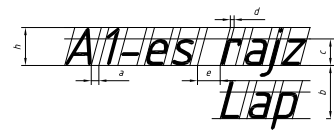
+ ± x [ ] ( ) =

szabadon választott szöveg:

Blank lined area for free text entry.

B típusú, dőlt alakú betűk, számok és írásjelek

Adatok:  $h=5$ ;  $c=3,5$ ;  $a=1$ ;  $b=7$ ;  $e=3$ ;  $d=0,5$



ILTEFH

NZXMY

AVWK

JUCGOQ

DPRBS

174

3506982

$7\frac{4}{7}50^{+0,5}_{-0,2}$

itvwxyz

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cdqgabp

rnmhueos

!/?|ø □ < > | °

+ ± × [ ] ( ) =

szabadon választott szöveg:

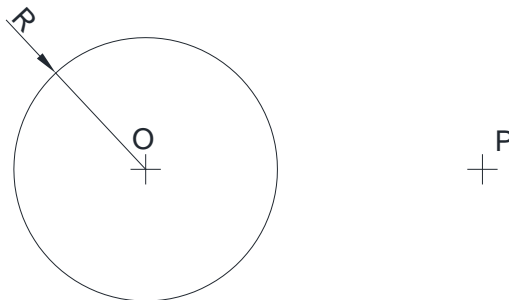
1. Szerkesszen szabályos hatszöget, ha adott a köré írható kör sugara „R”!



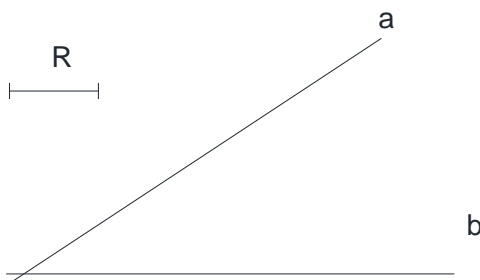
2. Szerkesszen szabályos hatszöget, ha adott a hatszögbe írható kör sugara „R”!



3. Szerkesszen érintőt adott „R” sugarú körhöz, a körön kívül eső „P” pontból!

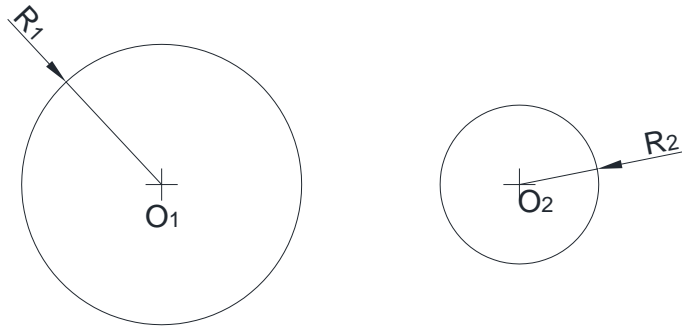


4. Szerkessze meg az „a” és „b” egymást metsző egyenesek adott „R” nagyságú lekerekítését!

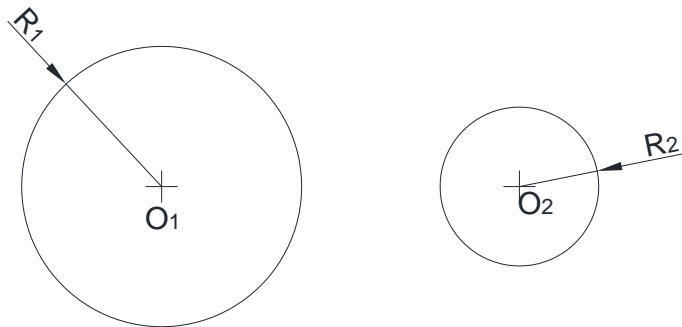


#### 4.1. Munkalap

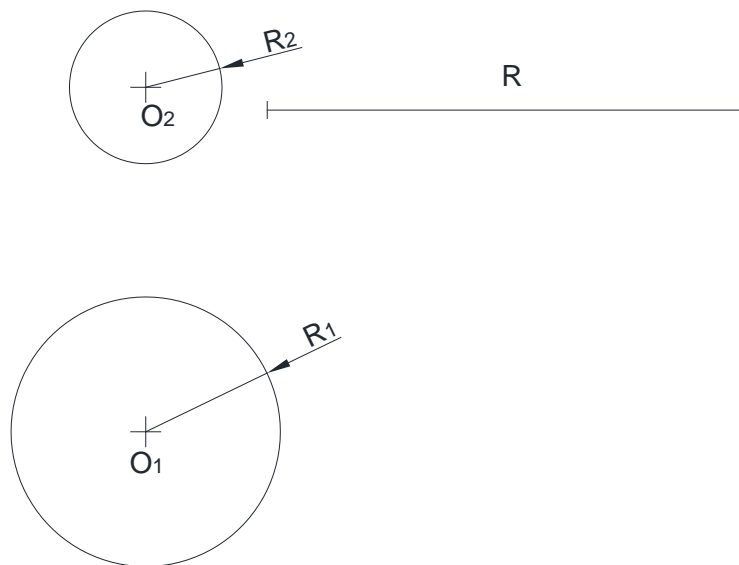
1.Szerkessze meg az „ $R_1$ ” és „ $R_2$ ” sugarú körök közös külső érintő egyenesét!



2.Szerkessze meg az „ $R_1$ ” és „ $R_2$ ” sugarú körök közös belső érintő egyenesét!

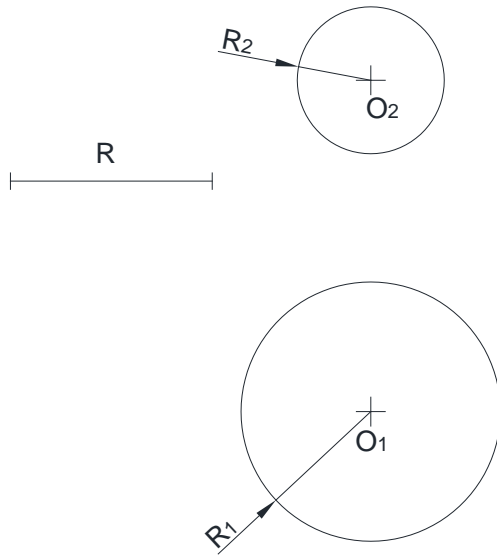


3.Szerkessze meg az „ $R_1$ ” és „ $R_2$ ” sugarú körök „ $R$ ” sugarú külső érintőkörét!



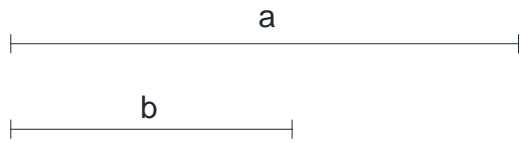
## 4.2. Munkalap

4. Szerkessze meg az „ $R_1$ ” és „ $R_2$ ” sugarú körök „ $R$ ” sugarú külső érintőkörét!

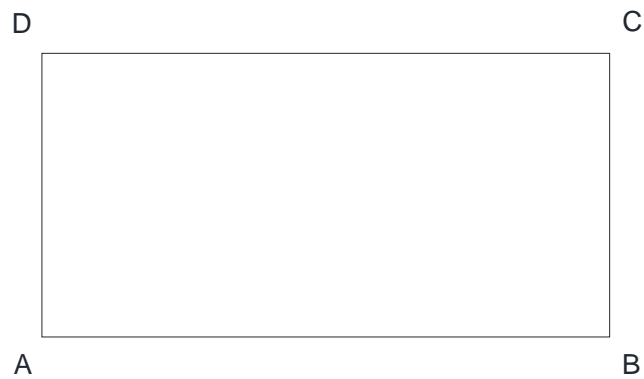


## 5. Munkalap

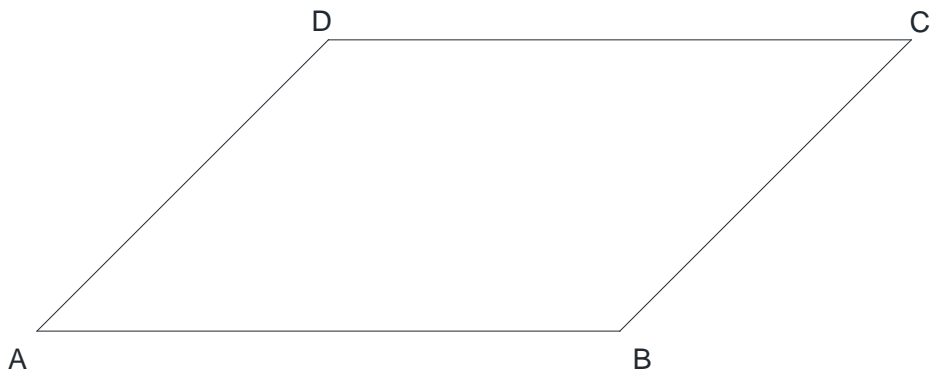
1. Szerkessze meg azt az ellipszist, amelynek nagy tengelye „a”, kis tengelye „b” nagyságú!



2. Rajzoljon ellipszist az ABCD téglalapba!



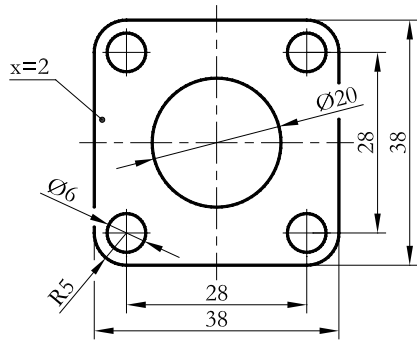
3. Rajzoljon ellipszist az ABCD romboidra!



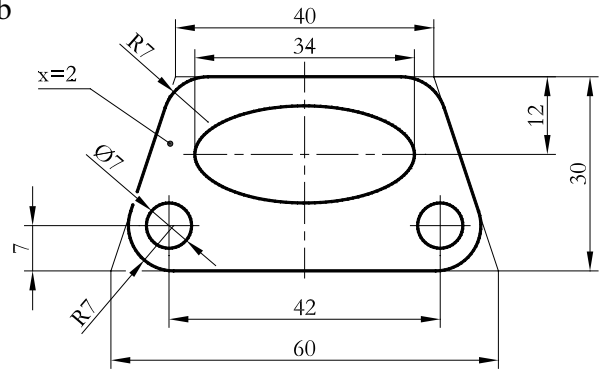
6. Munkalap

1.Szerkessze meg a lemeztárgyat!

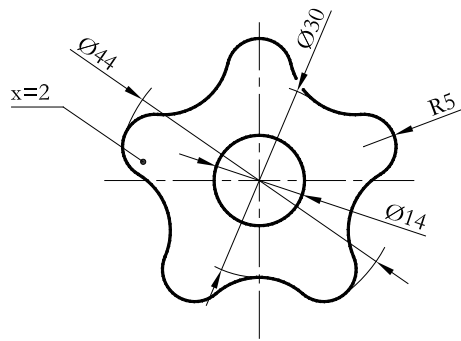
a



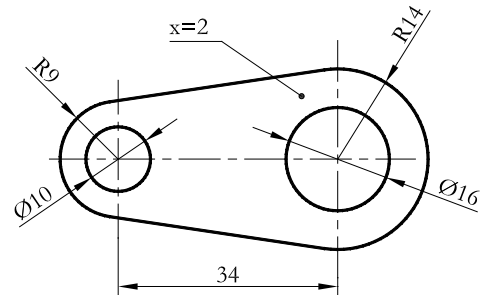
b



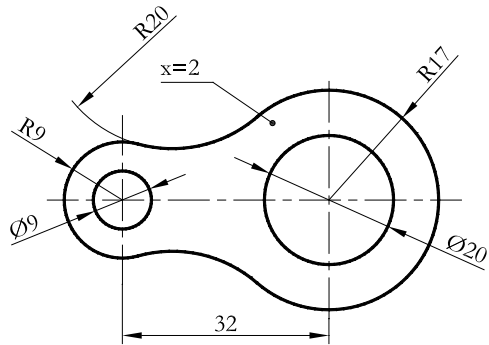
c



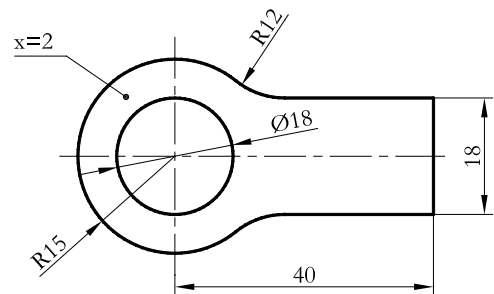
d



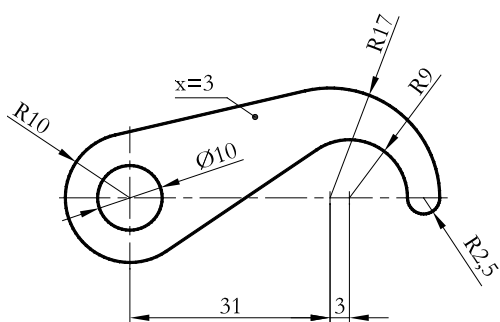
e



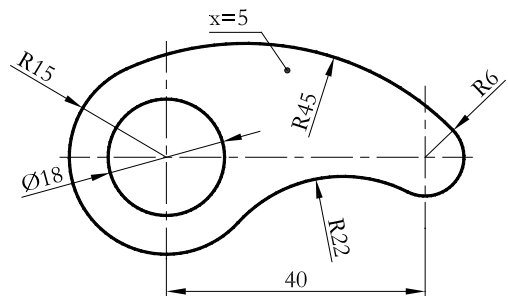
f



g



h

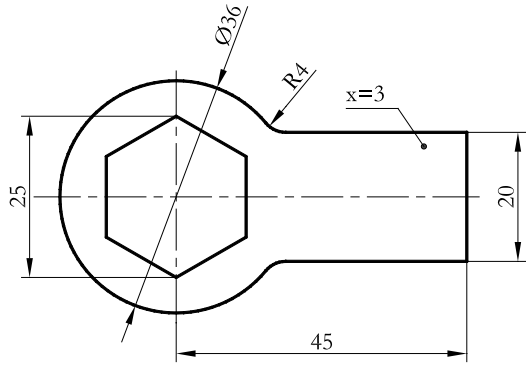




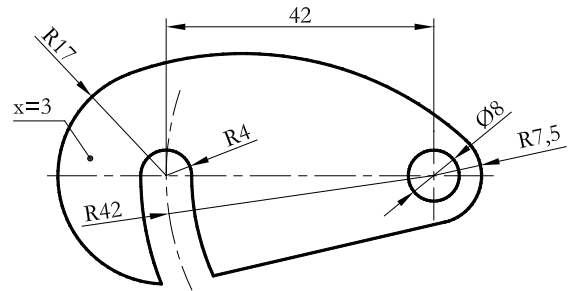
# 7. Munkalap

1.Szerkessze meg a lemeztárgyakat!

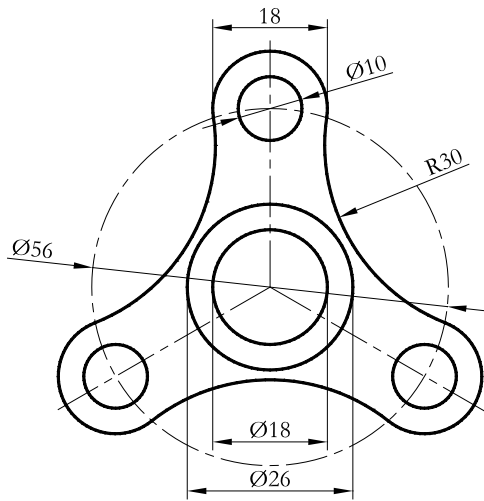
a



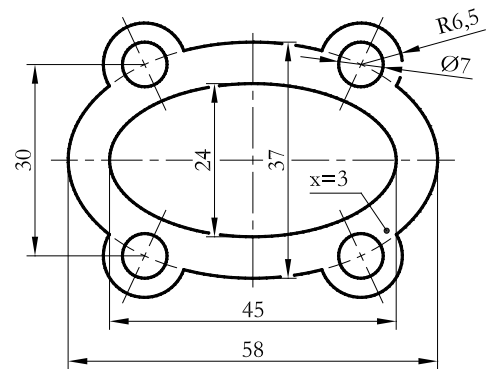
b



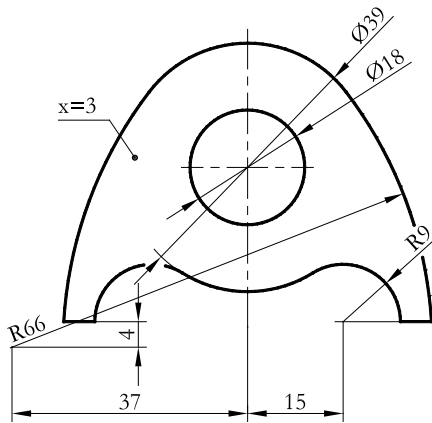
c



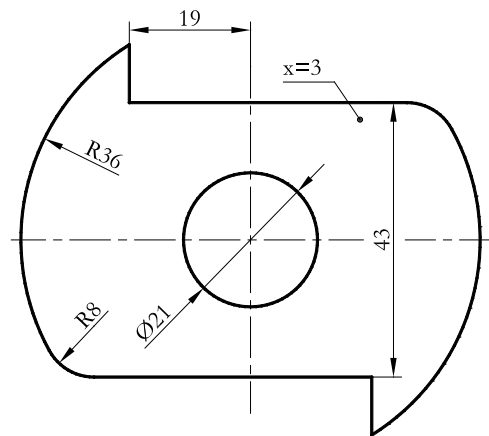
d



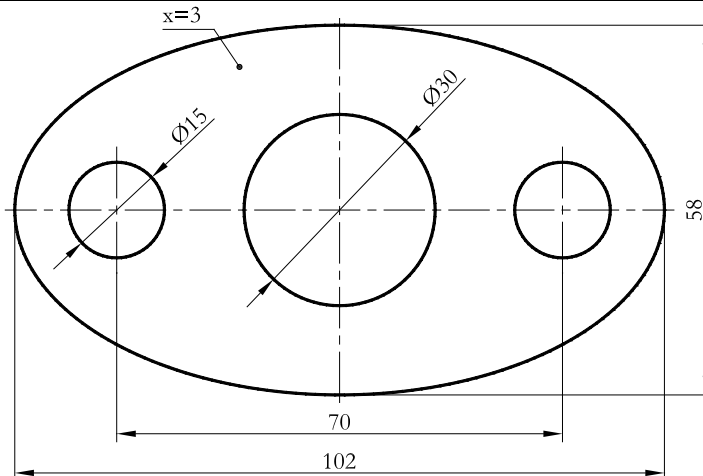
e



f



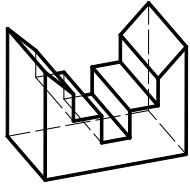
g



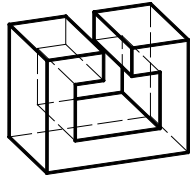
8.1 Munkalap

1.1 Keresse meg a kockák egymást kiegészítő idomrészeit! (pl.: 1-T)

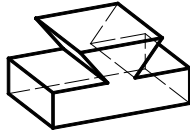
1



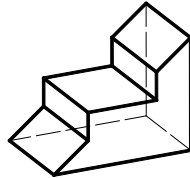
2



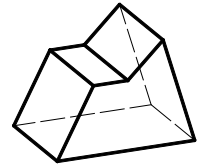
3



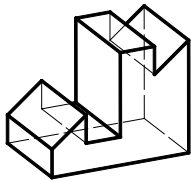
4



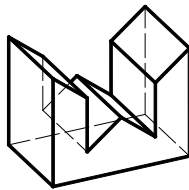
5



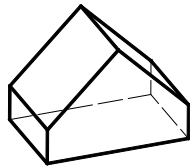
6



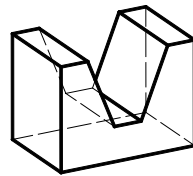
7



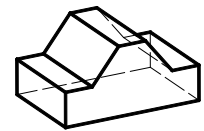
8



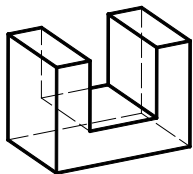
9



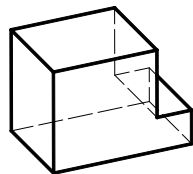
10



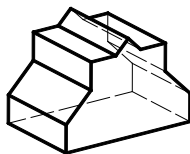
11



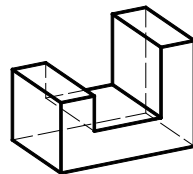
12



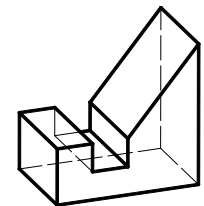
13



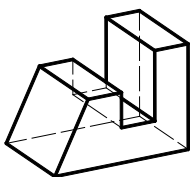
14



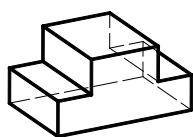
15



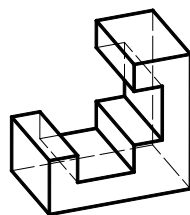
16



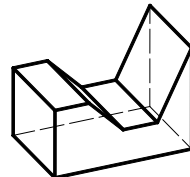
17



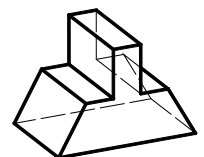
18



19



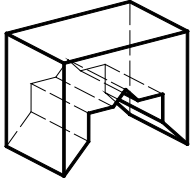
20



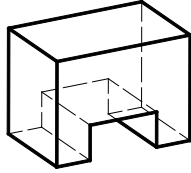
8.2 Munkalap

1.2

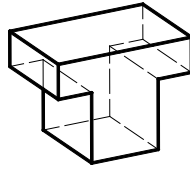
A



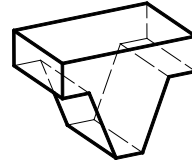
B



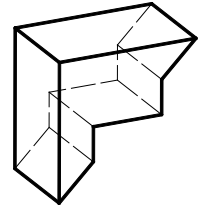
C



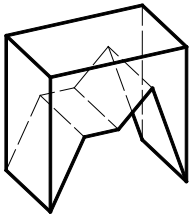
D



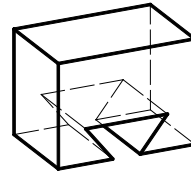
E



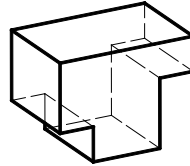
F



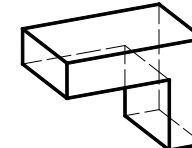
G



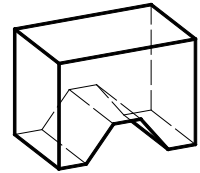
H



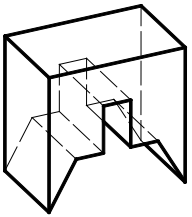
I



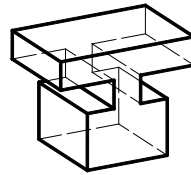
J



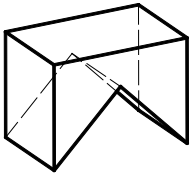
K



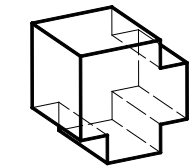
L



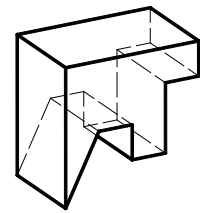
M



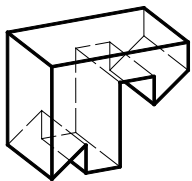
N



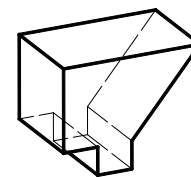
O



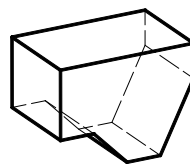
P



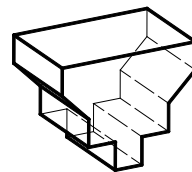
R



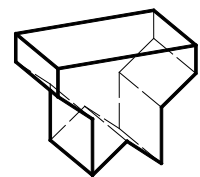
S



T

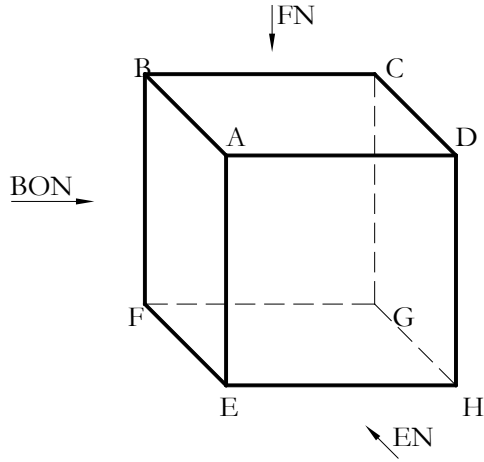


U

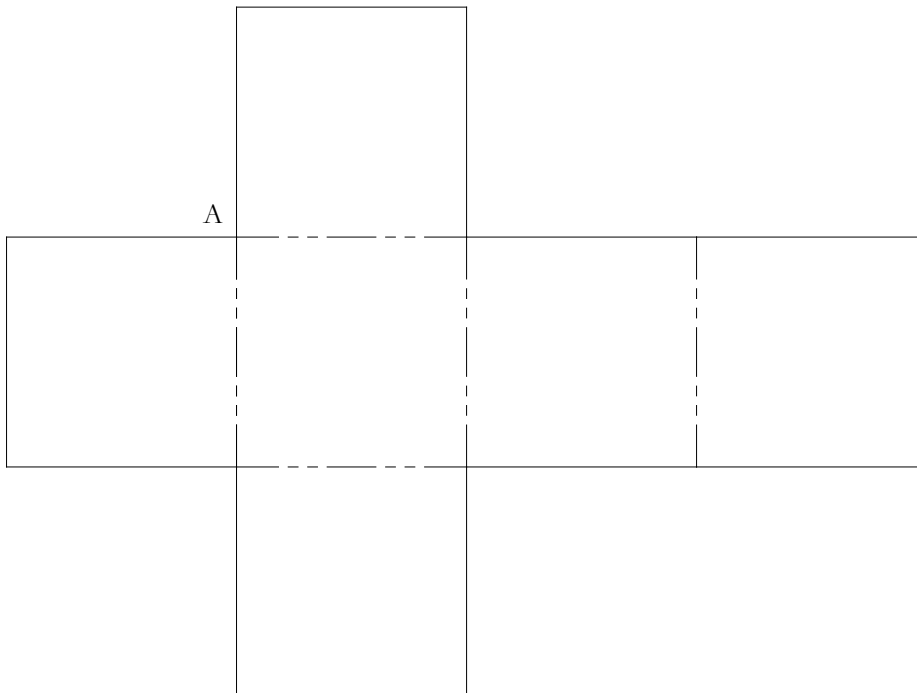
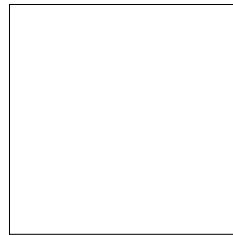
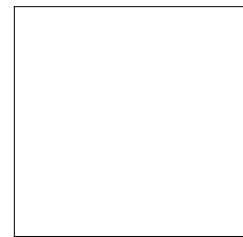
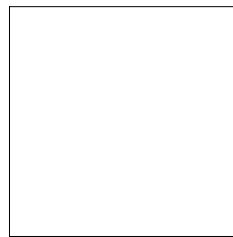


1. Az alábbi képen egy kocka tárhatású ábrája látható.

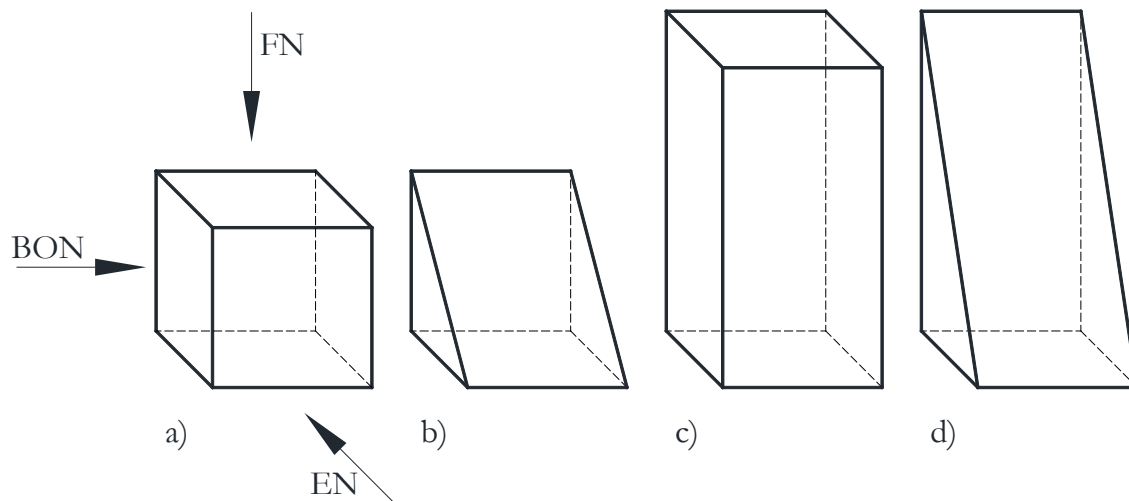
- Rajzolja be és nevezze meg a kocka jelölt jellemzőit!
- Készítse el a test adott irányú képeit!
- Jelölje a kocka palástján a megfelelő pontokat!



AB-  
EH-  
EC-  
FH-  
FC-



1. A feladatban 4 különböző test térhatású ábrája látható. Rajzolja meg a testek előlnézetét, felülnézetét és a bal oldali nézetét! A nézési irányokat a nyilak jelzik.

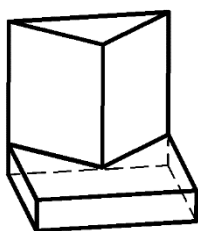


a)	<input type="text" value="EN"/>	<input type="text" value="BON"/>	b)	<input type="text" value="EN"/>	<input type="text" value="BON"/>
	<input type="text" value="FN"/>			<input type="text" value="FN"/>	
c)	<input type="text" value="EN"/>	<input type="text" value="BON"/>	d)	<input type="text" value="EN"/>	<input type="text" value="BON"/>
	<input type="text" value="FN"/>			<input type="text" value="FN"/>	

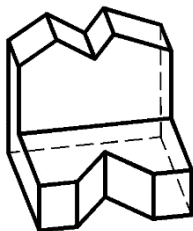
11.1 Munkalap

1.1 Ábrázolja a csonkolt kockákat 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

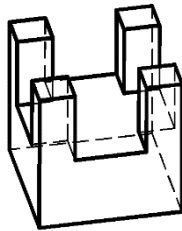
1



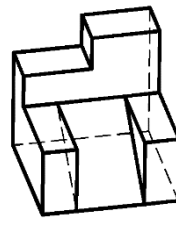
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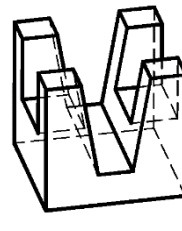
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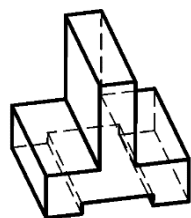
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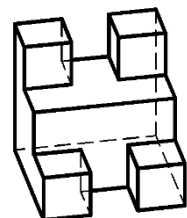
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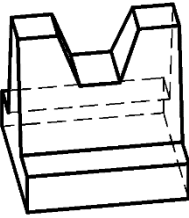
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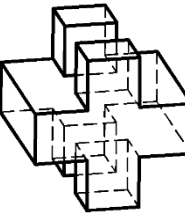
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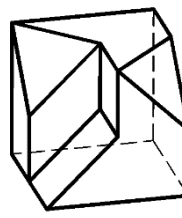
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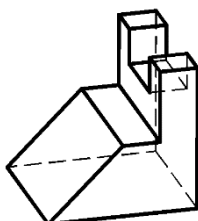
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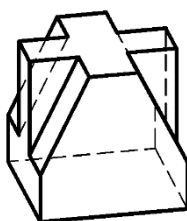
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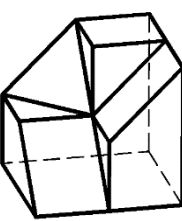
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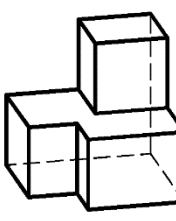
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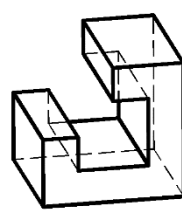
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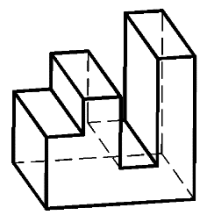
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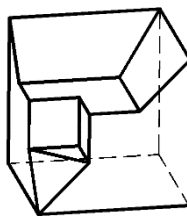
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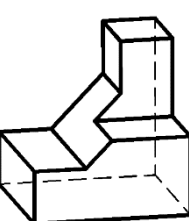
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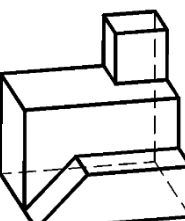
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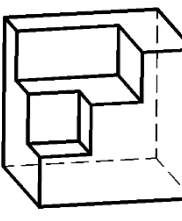
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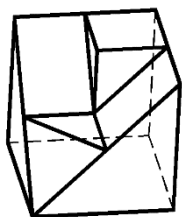
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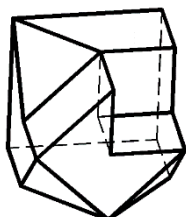
11.2 Munkalap

1.2 Ábrázolja a csonkolt kockákat 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

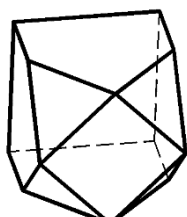
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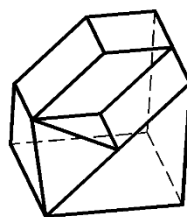
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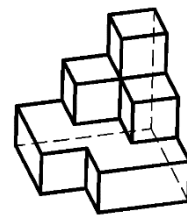
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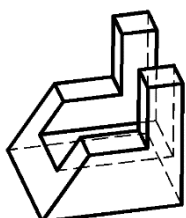
24



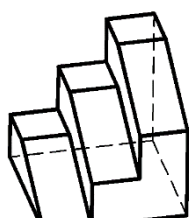
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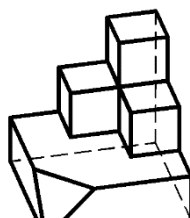
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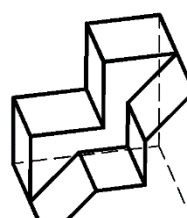
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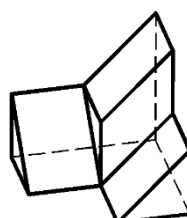
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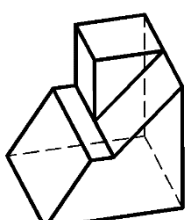
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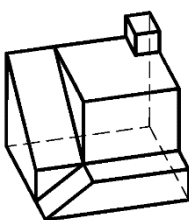
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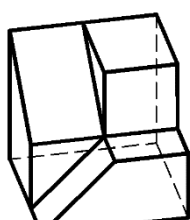
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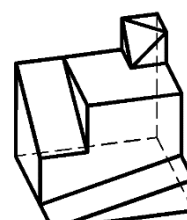
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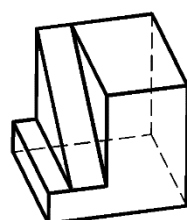
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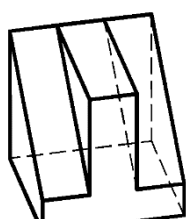
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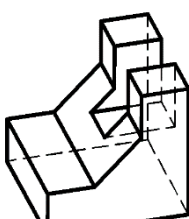
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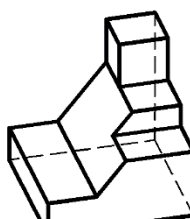
36



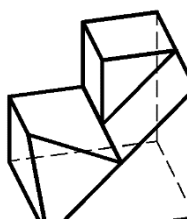
37



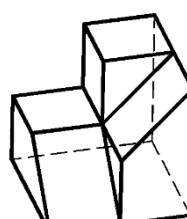
38



39



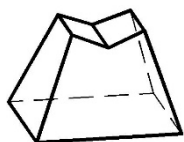
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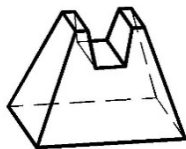
12.1 Munkalap

1.1 Keresse meg a gúlán egymást kiegészítő idomrészeit! (pl.: 1-M)

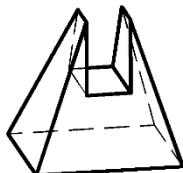
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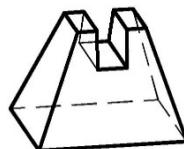
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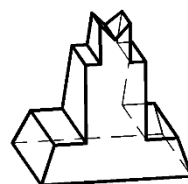
3



4



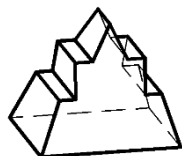
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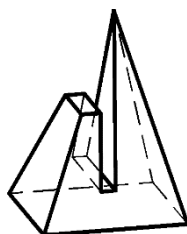
6



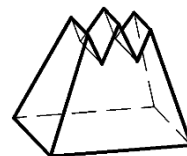
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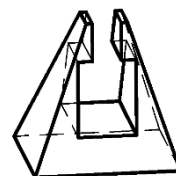
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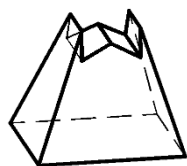
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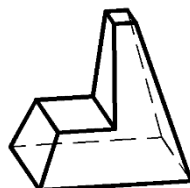
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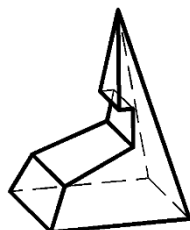
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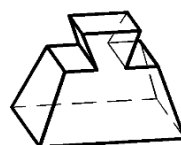
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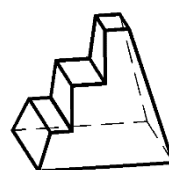
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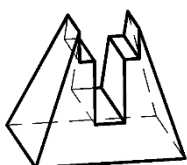
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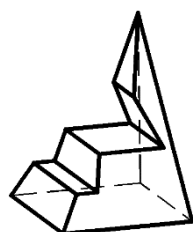
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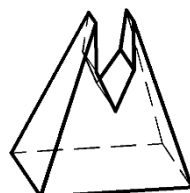
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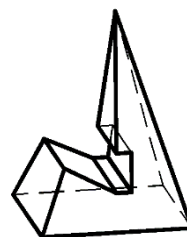
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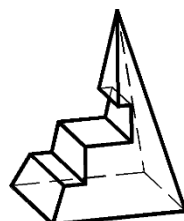
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19



20

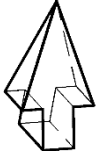




12.2 Munkalap

1.2

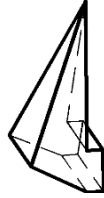
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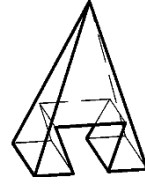
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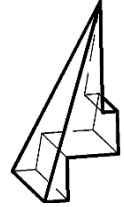
C



D



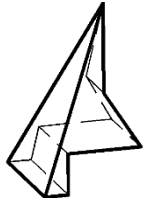
E



F



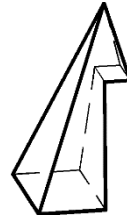
G



H



I



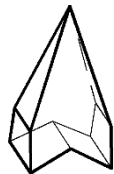
J



K



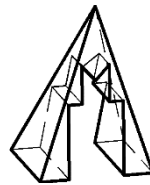
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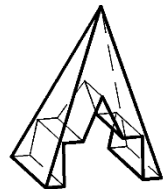
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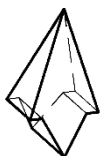
N



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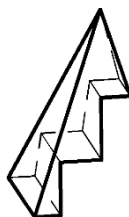
P



R



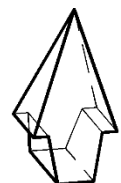
S



T



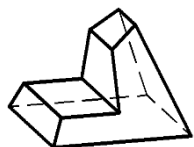
U



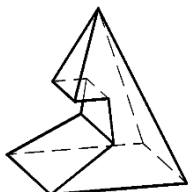
13.1 Munkalap

1.1 Ábrázolja a csonkolt gúlákat 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

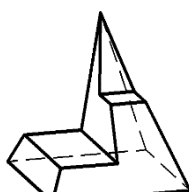
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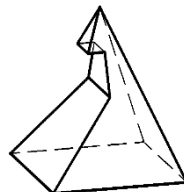
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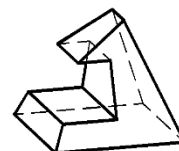
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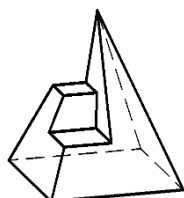
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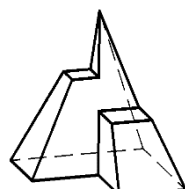
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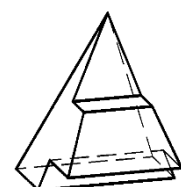
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7



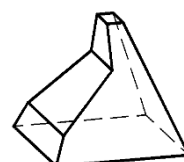
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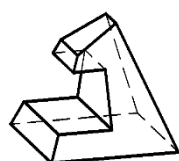
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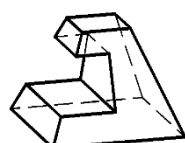
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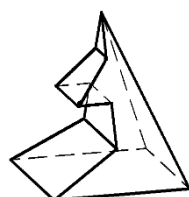
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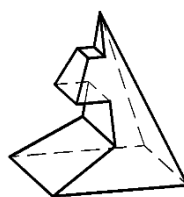
12



13



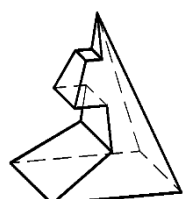
14



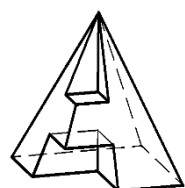
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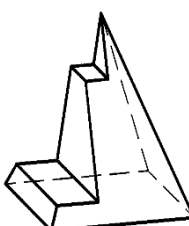
16



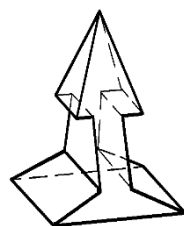
17



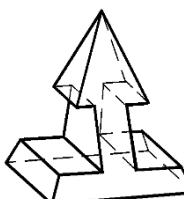
18



19



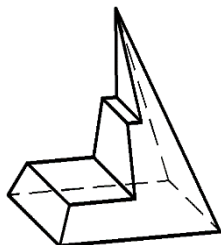
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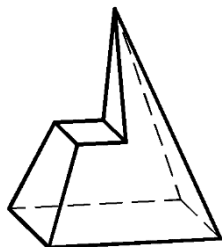
13.2 Munkalap

1.2 Ábrázolja a csonkolt gúlákat 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

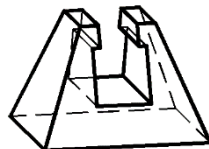
21



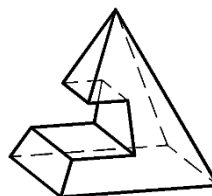
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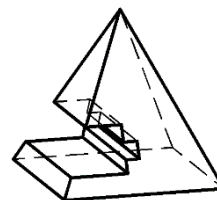
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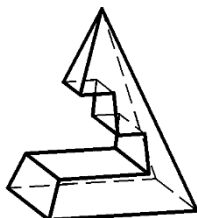
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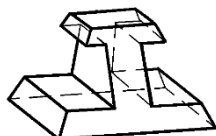
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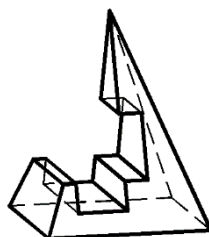
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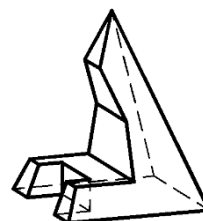
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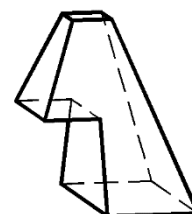
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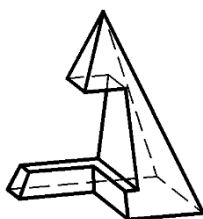
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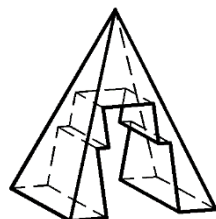
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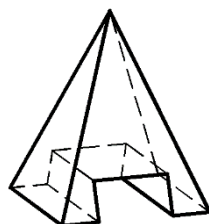
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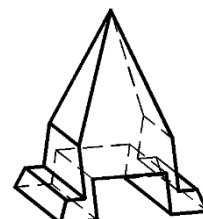
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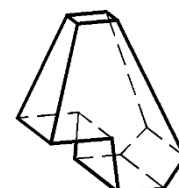
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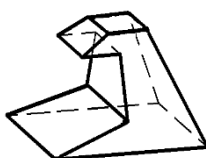
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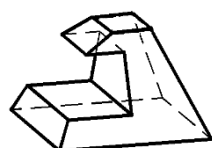
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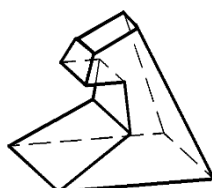
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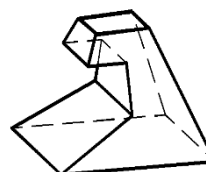
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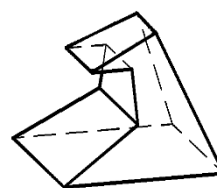
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39



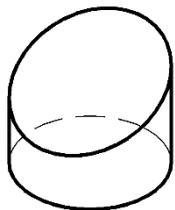
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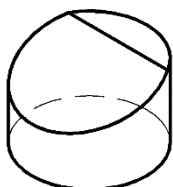
14.1 Munkalap

1.1 Keresse meg a hengerek egymást kiegészítő idomrészeit! (pl.: 1-P)

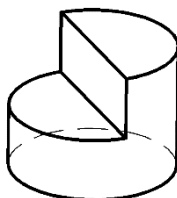
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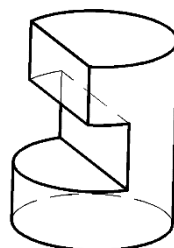
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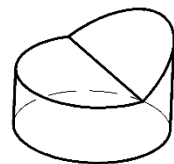
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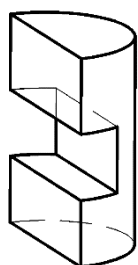
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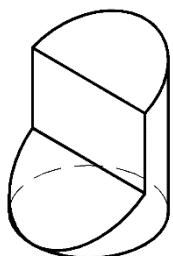
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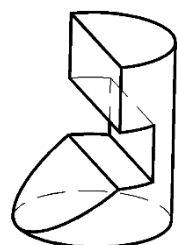
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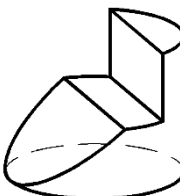
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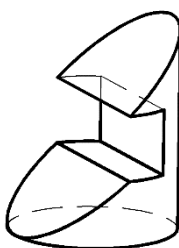
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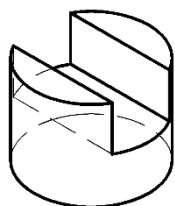
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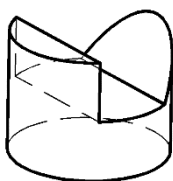
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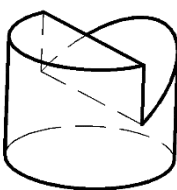
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12



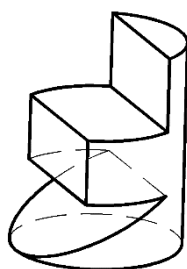
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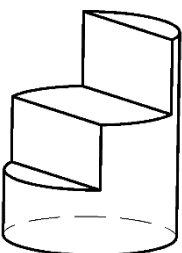
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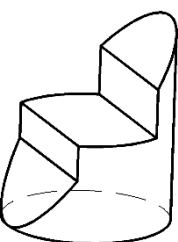
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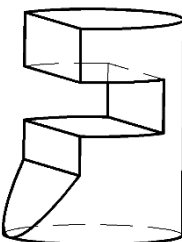
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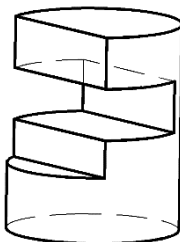
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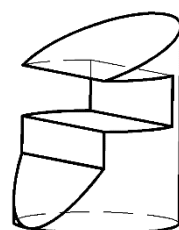
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19



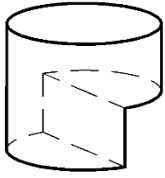
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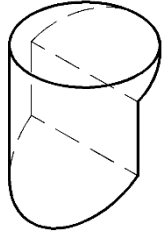
14.2 Munkalap

1.2

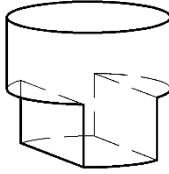
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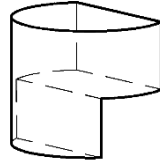
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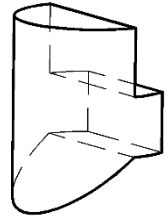
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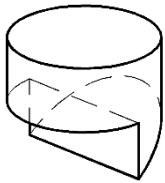
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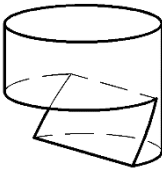
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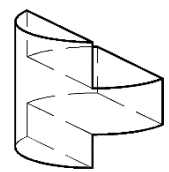
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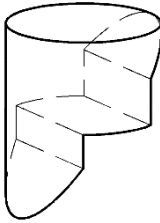
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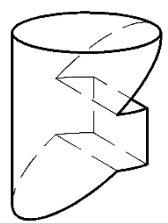
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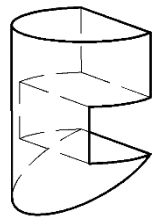
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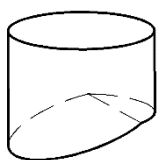
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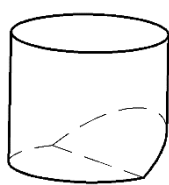
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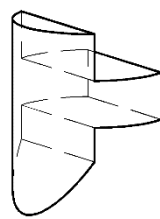
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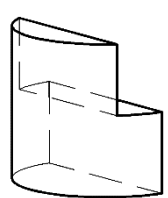
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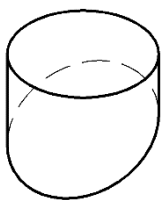
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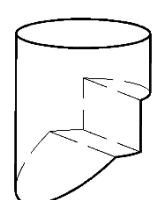
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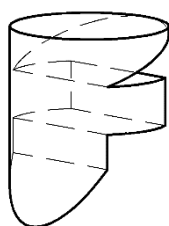
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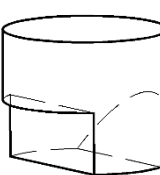
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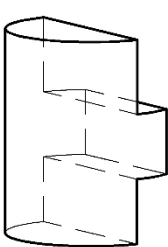
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T



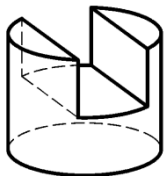
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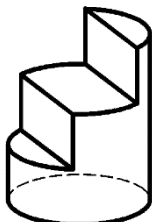
15.1 Munkalap

1.1 Ábrázolja a csonkolt hengereket 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

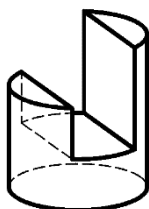
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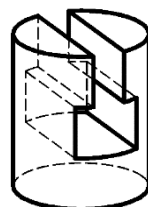
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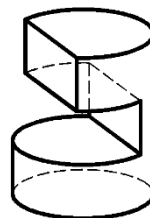
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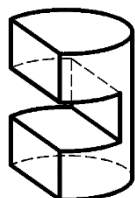
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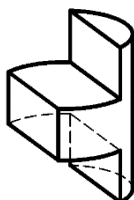
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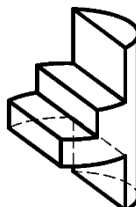
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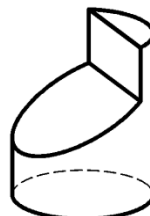
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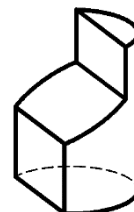
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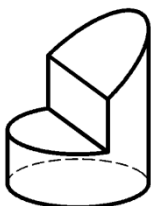
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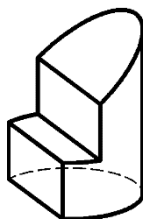
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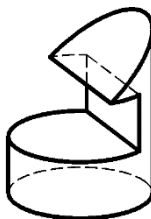
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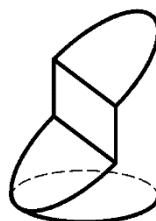
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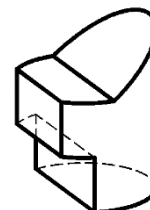
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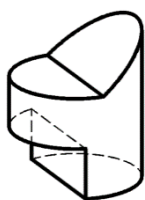
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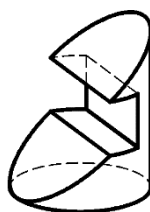
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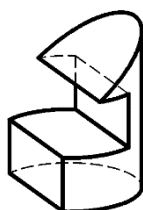
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17



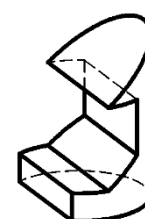
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19



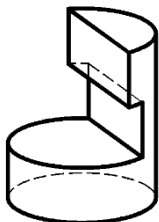
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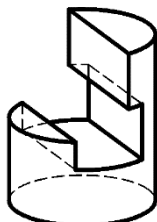
15.2 Munkalap

1.2 Ábrázolja a csonkolt hengereket 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

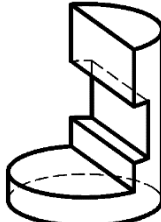
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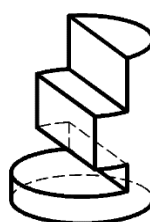
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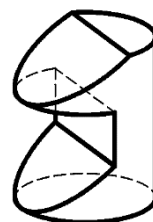
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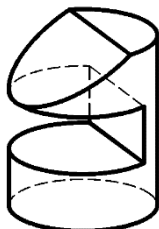
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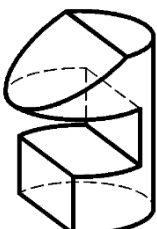
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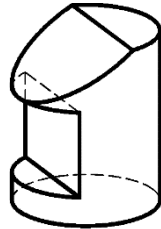
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27



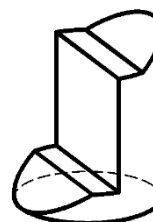
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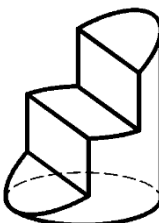
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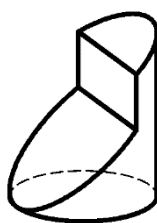
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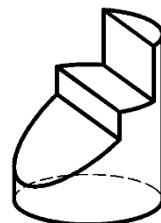
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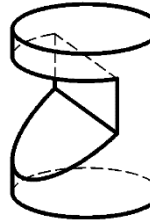
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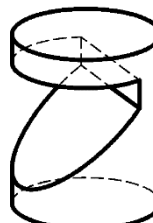
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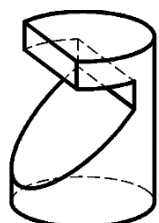
34



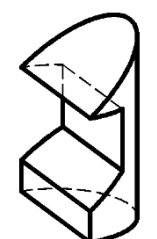
35



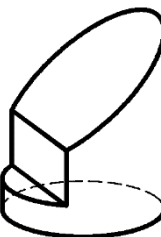
36



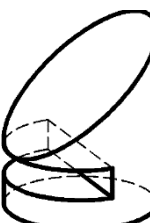
37



38



39



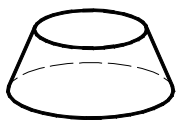
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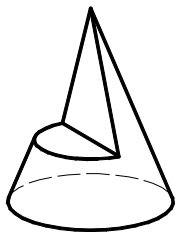
16.1 Munkalap

1.1 Keresse meg a kúpok egymást kiegészítő idomrészeit! (pl.: 1-M)

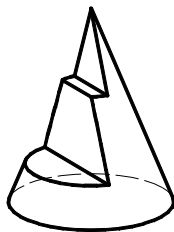
1



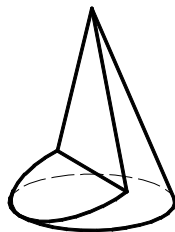
2



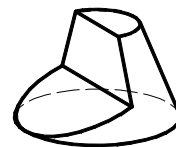
3



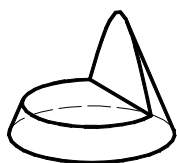
4



5



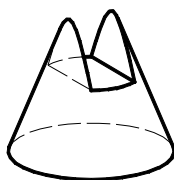
6



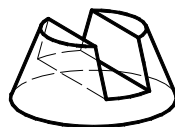
7



8



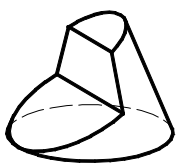
9



10



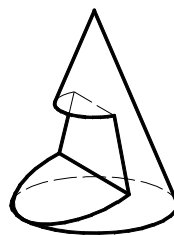
11



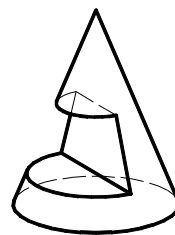
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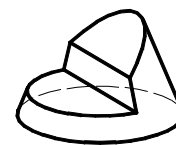
13



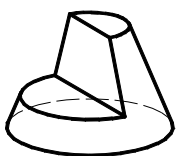
14



15



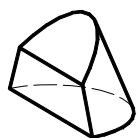
16



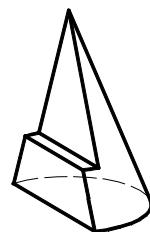
17



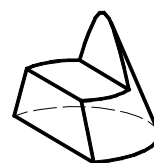
18



19



20





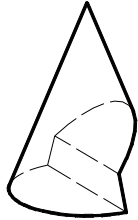
16.2 Munkalap

1.2

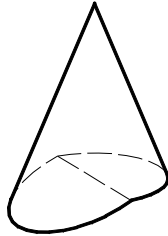
A



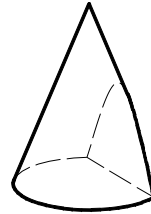
B



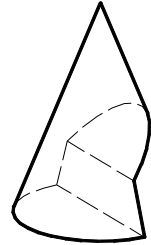
C



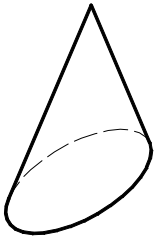
D



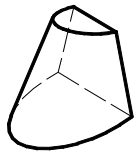
E



F



G



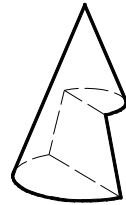
H



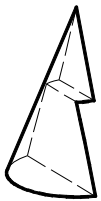
I



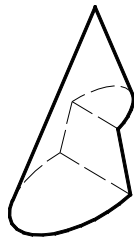
J



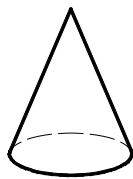
K



L



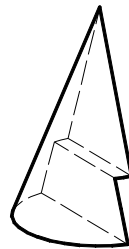
M



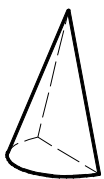
N



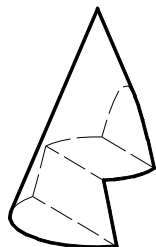
O



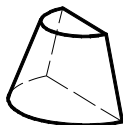
P



R



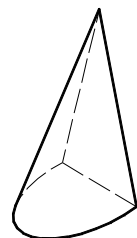
S



T



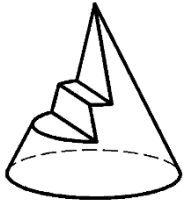
U



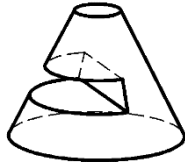
17.1 Munkalap

1.1 Ábrázolja a csonkolt kúpokat 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

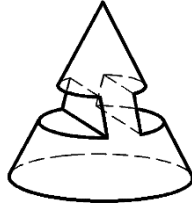
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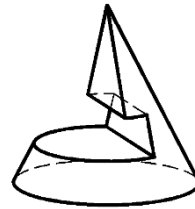
2



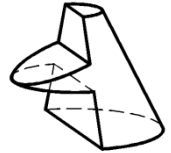
3



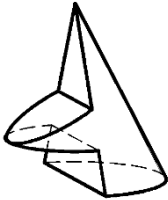
4



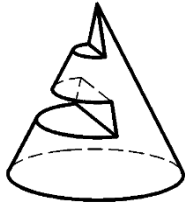
5



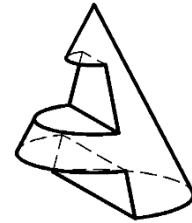
6



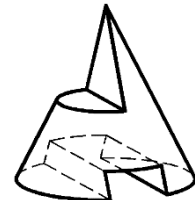
7



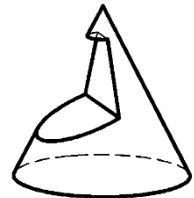
8



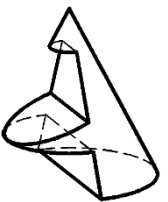
9



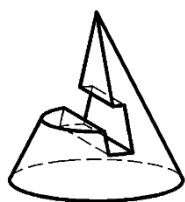
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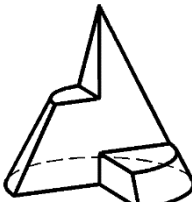
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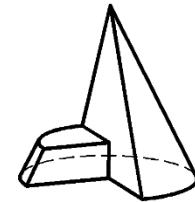
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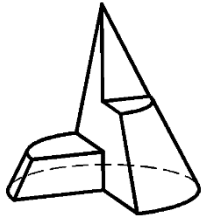
13



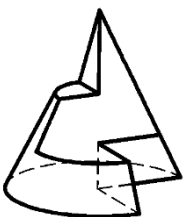
14



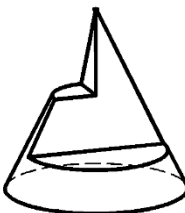
15



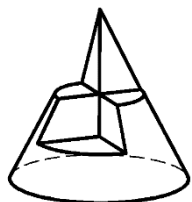
16



17



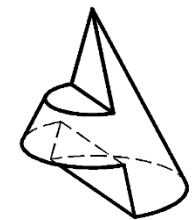
18



19



20



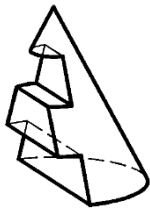
17.2 Munkalap

1.2 Ábrázolja a csonkolt kúpokat 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

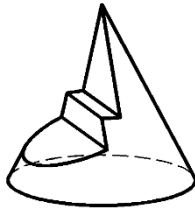
21



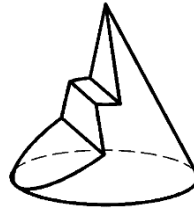
22



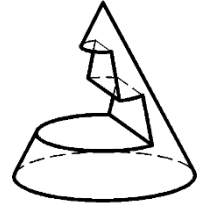
23



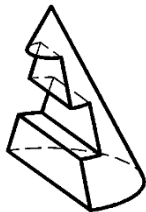
24



25



26



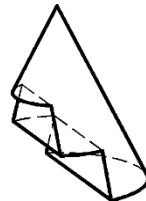
27



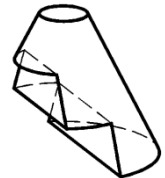
28



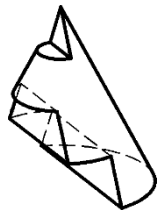
29



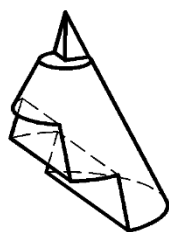
30



31



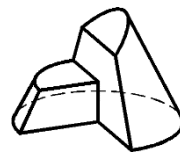
32



33



34



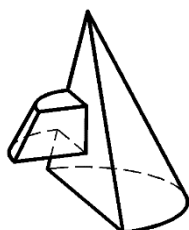
35



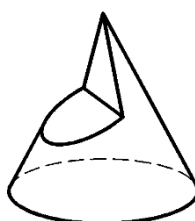
36



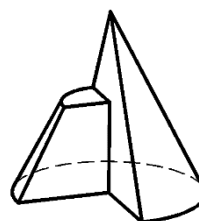
37



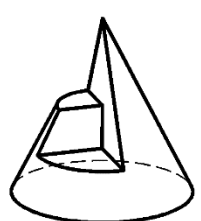
38



39



40



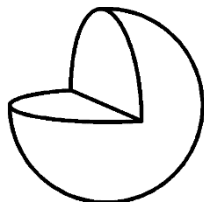
18.1 Munkalap

1.1 Keresse meg a gömbök egymást kiegészítő idomrészeit! (pl.: 1-P)

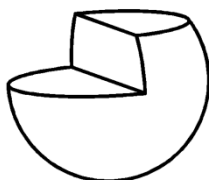
1



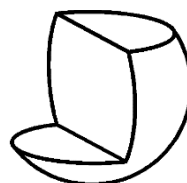
2



3



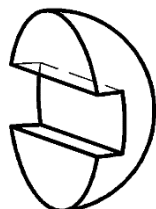
4



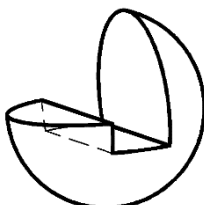
5



6



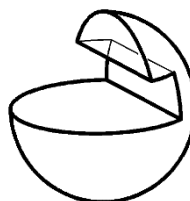
7



8



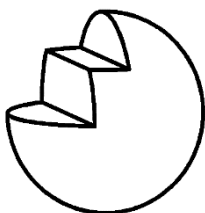
9



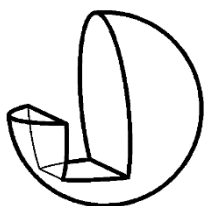
10



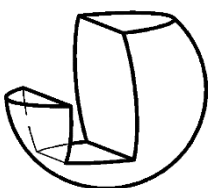
11



12



13



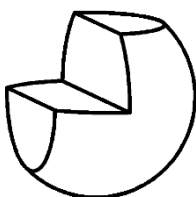
14



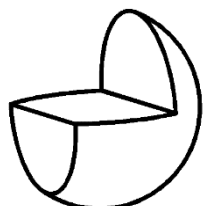
15



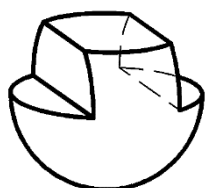
16



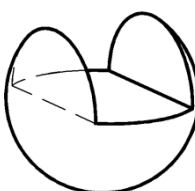
17



18



19



20



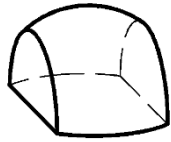
18.2 Munkalap

1.2

A



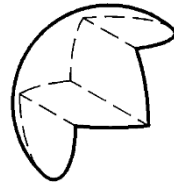
B



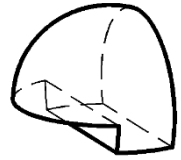
C



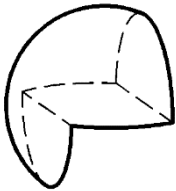
D



E



F



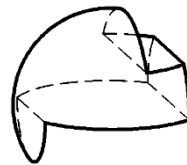
G



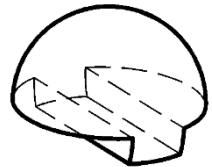
H



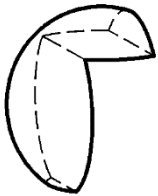
I



J



K



L



M



N



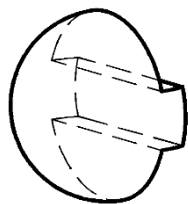
O



P



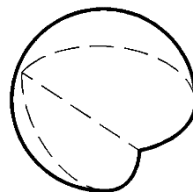
R



S



T

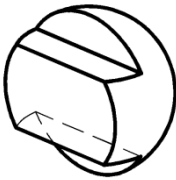
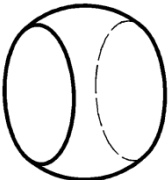

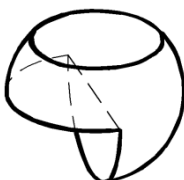
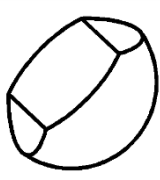

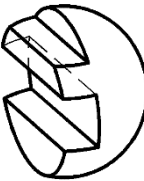

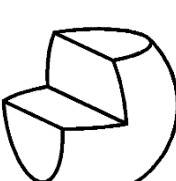


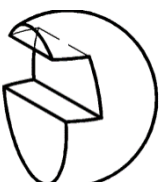
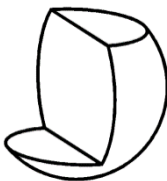
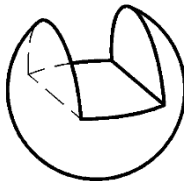


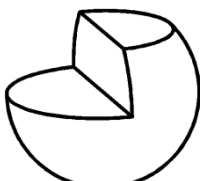
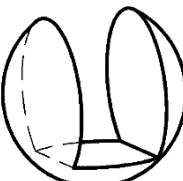
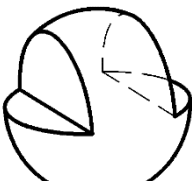
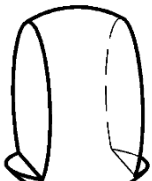


U



19.1 Munkalap

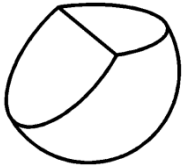
1.1 Ábrázolja a csonkolt gömböket 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

1	2	3	4	5
				
6	7	8	9	10
				
11	12	13	14	15
				
16	17	18	19	20
				

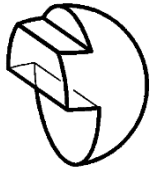
19.2 Munkalap

1.2 Ábrázolja a csonkolt gömböket 3 vetületben! (Előlnézet, felülnézet, bal oldali nézet)

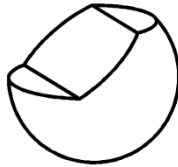
21



22



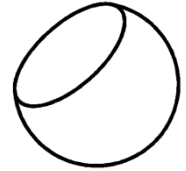
23



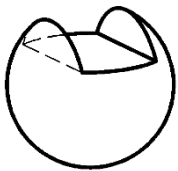
24



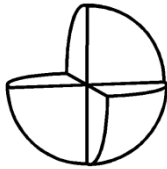
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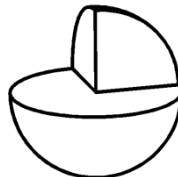
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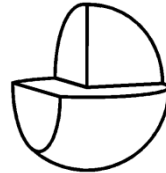
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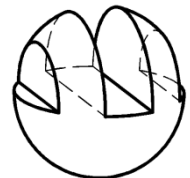
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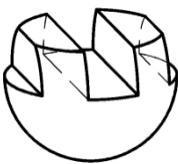
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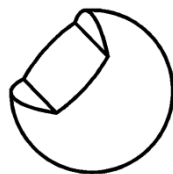
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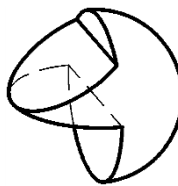
31



32



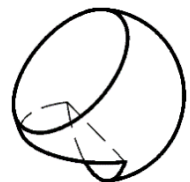
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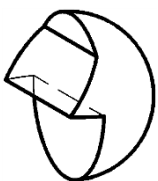
34



35



36



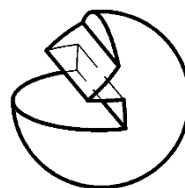
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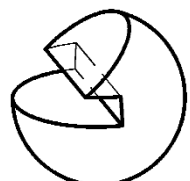
38



39

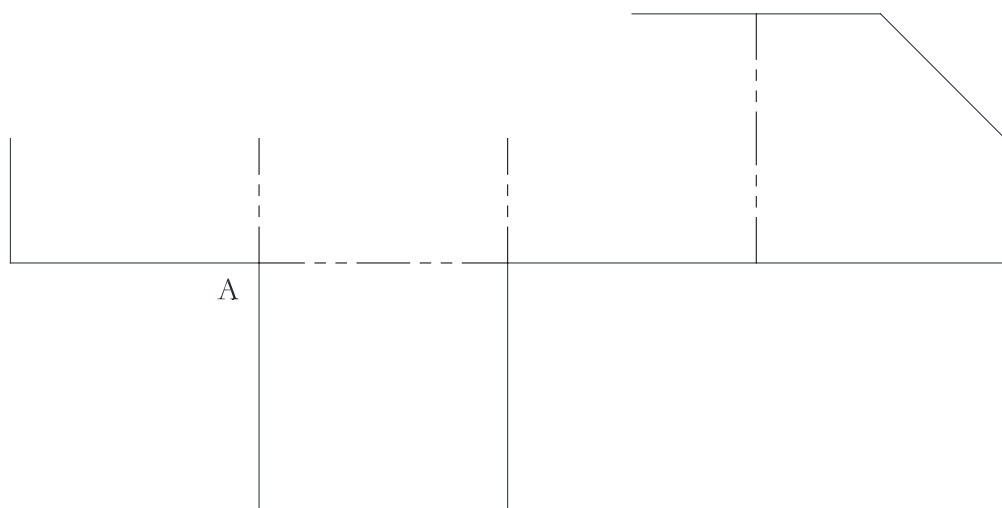
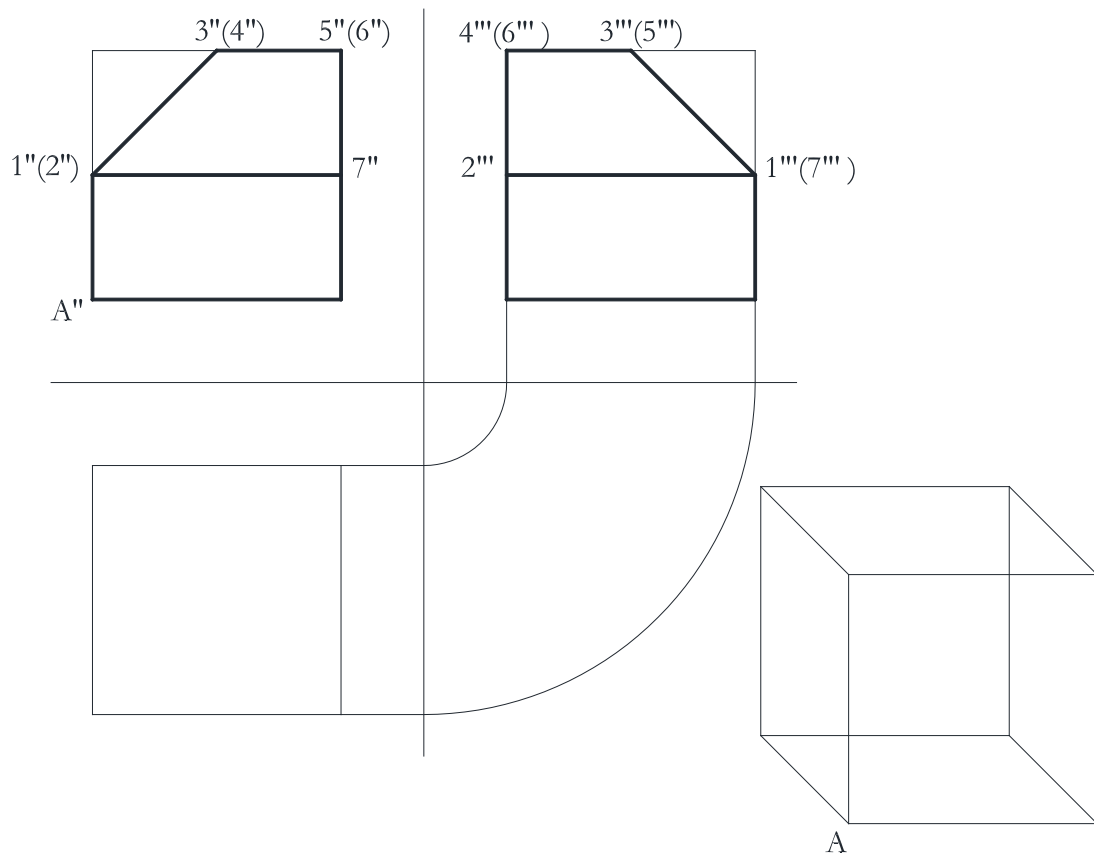


40



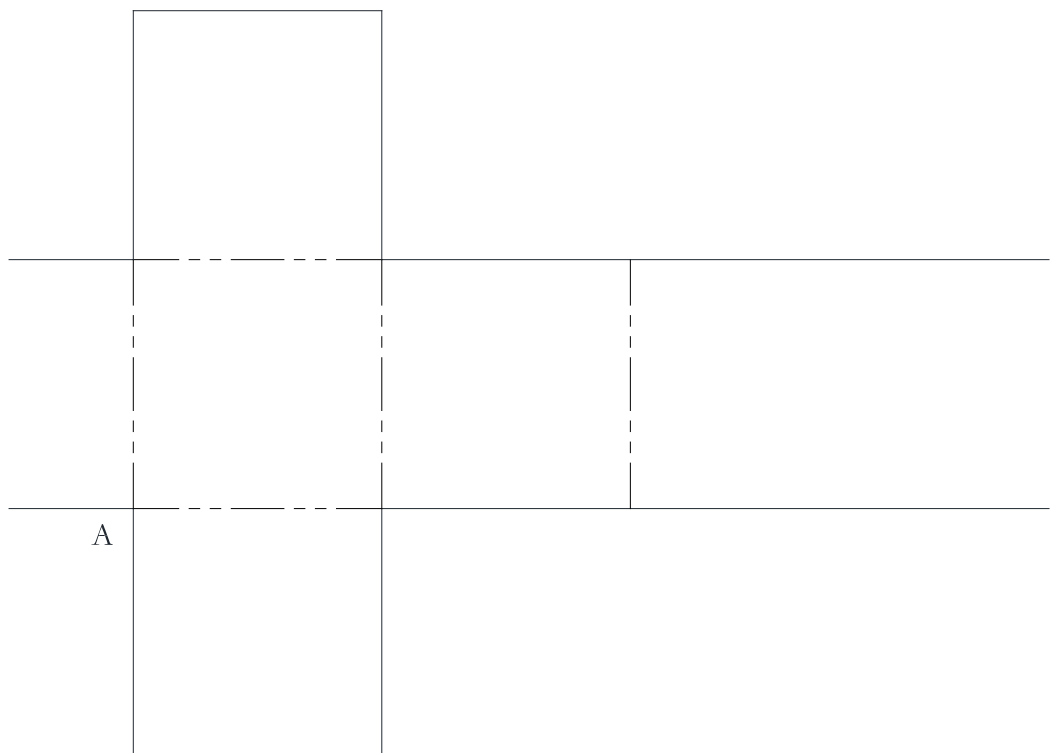
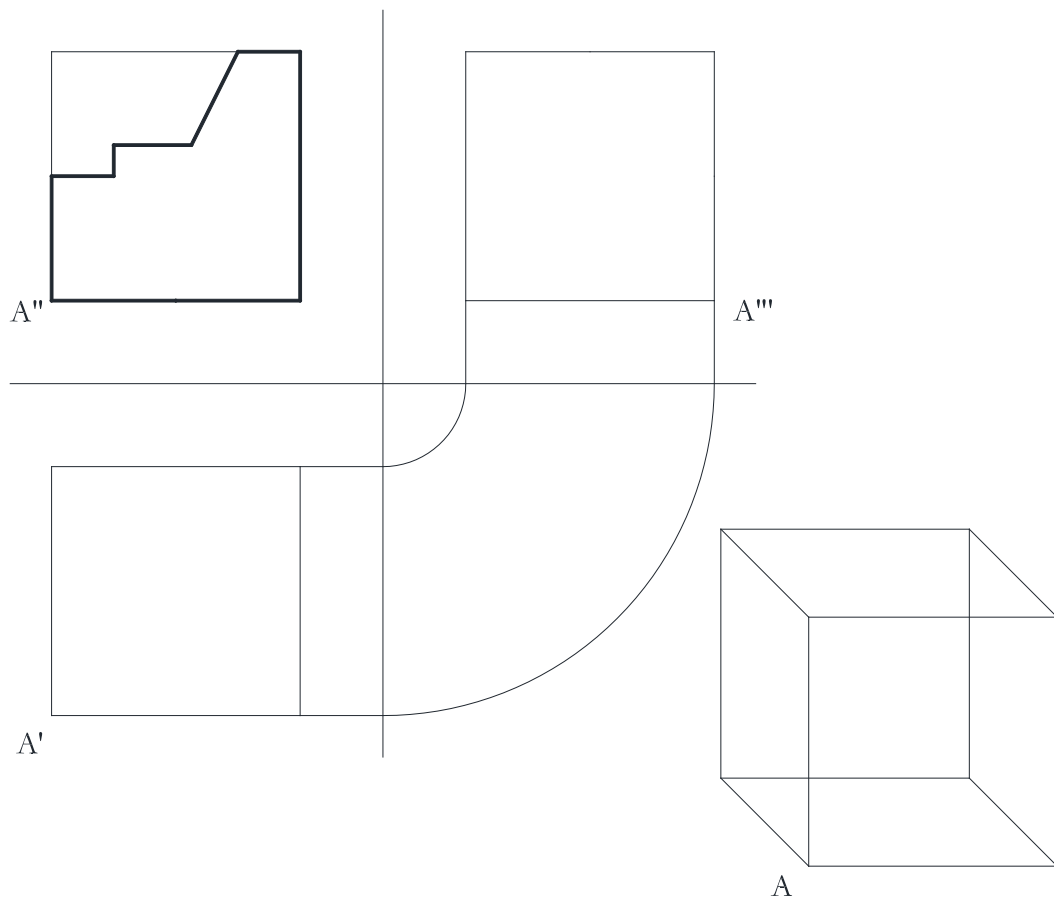
20. Munkalap

1. Rajzolja meg a csonkolt kocka hiányzó vetületeit, térhatású (axonometrikus) ábráját és palástját! Adja meg a két vetületi képen jelölt pontokat a térhatású (axonometrikus) ábrán és a paláston!

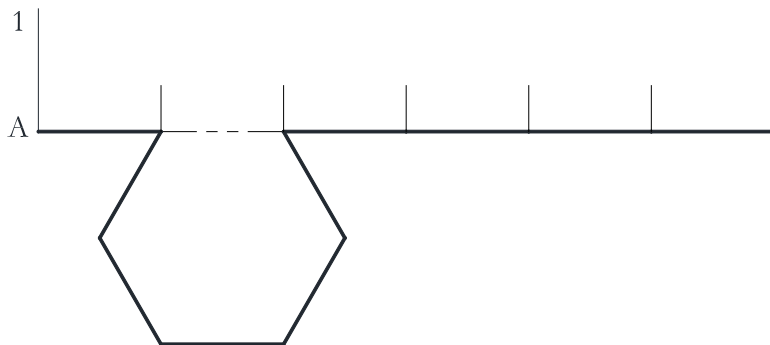
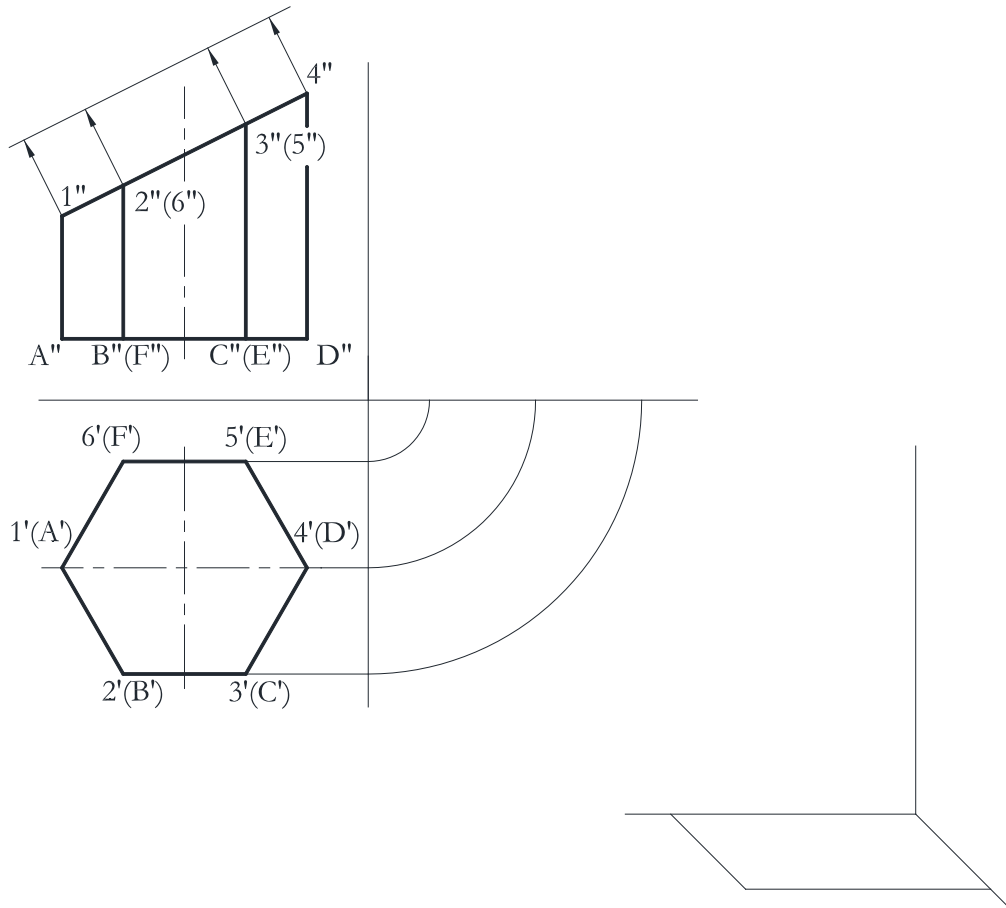




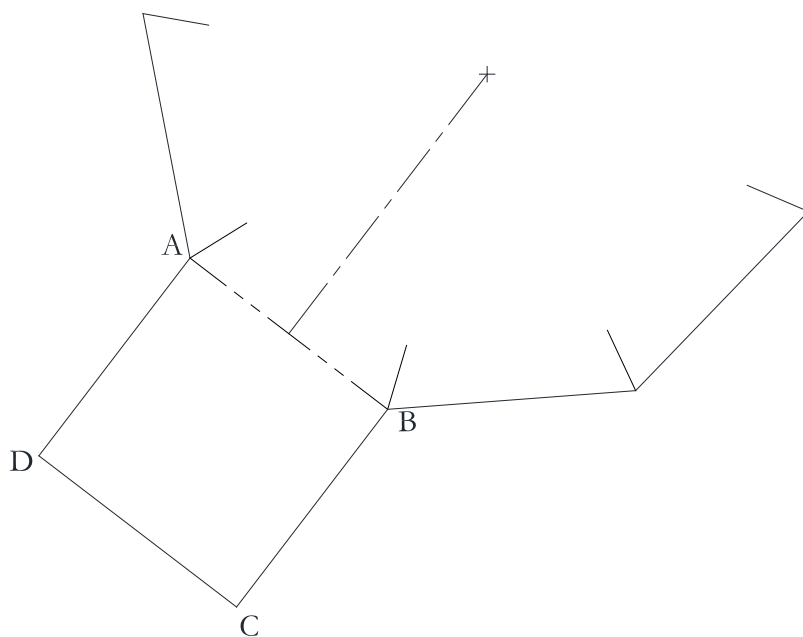
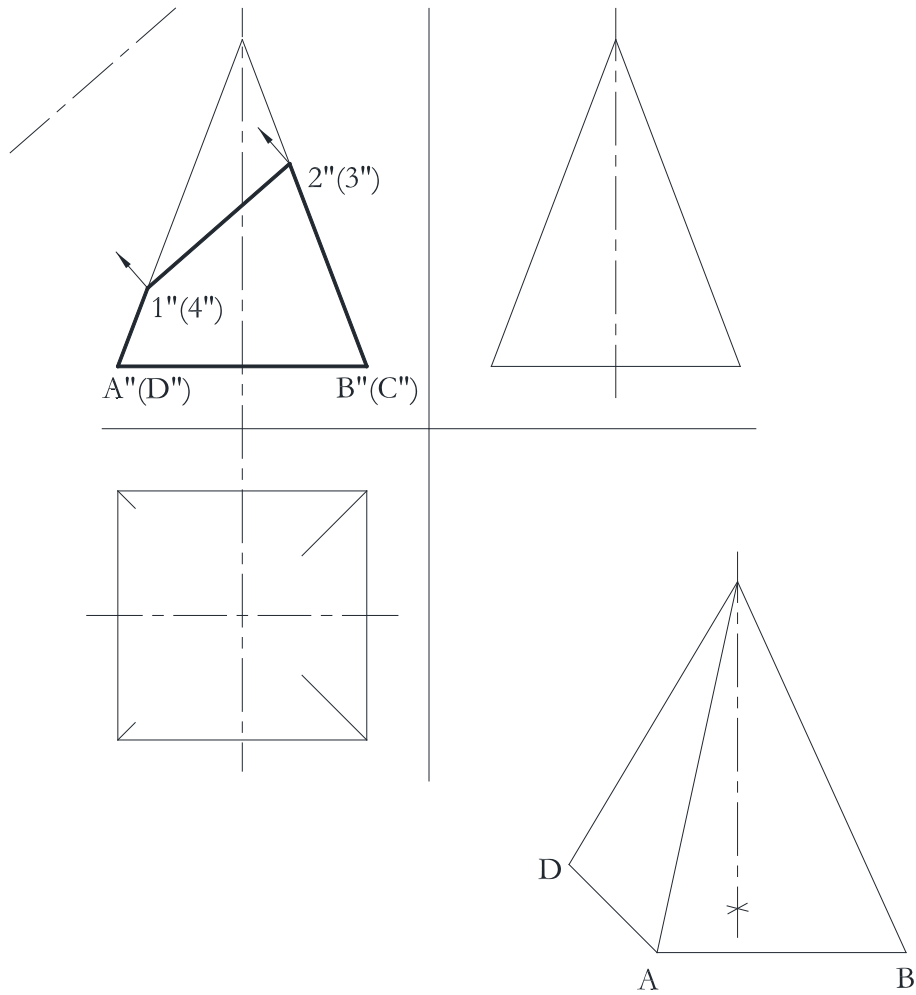
1. Rajzolja meg a csonkolt kocka hiányzó vetületeit, térhatású (axonometrikus) ábráját és kiterített palástját!



1. Rajzolja meg a hasáb hiányzó vetületét, térhatású (axonometrikus) ábráját és a metszéssel keletkezett síkidom valódi nagyságát! Készítse el a hasáb kiterített palástját!

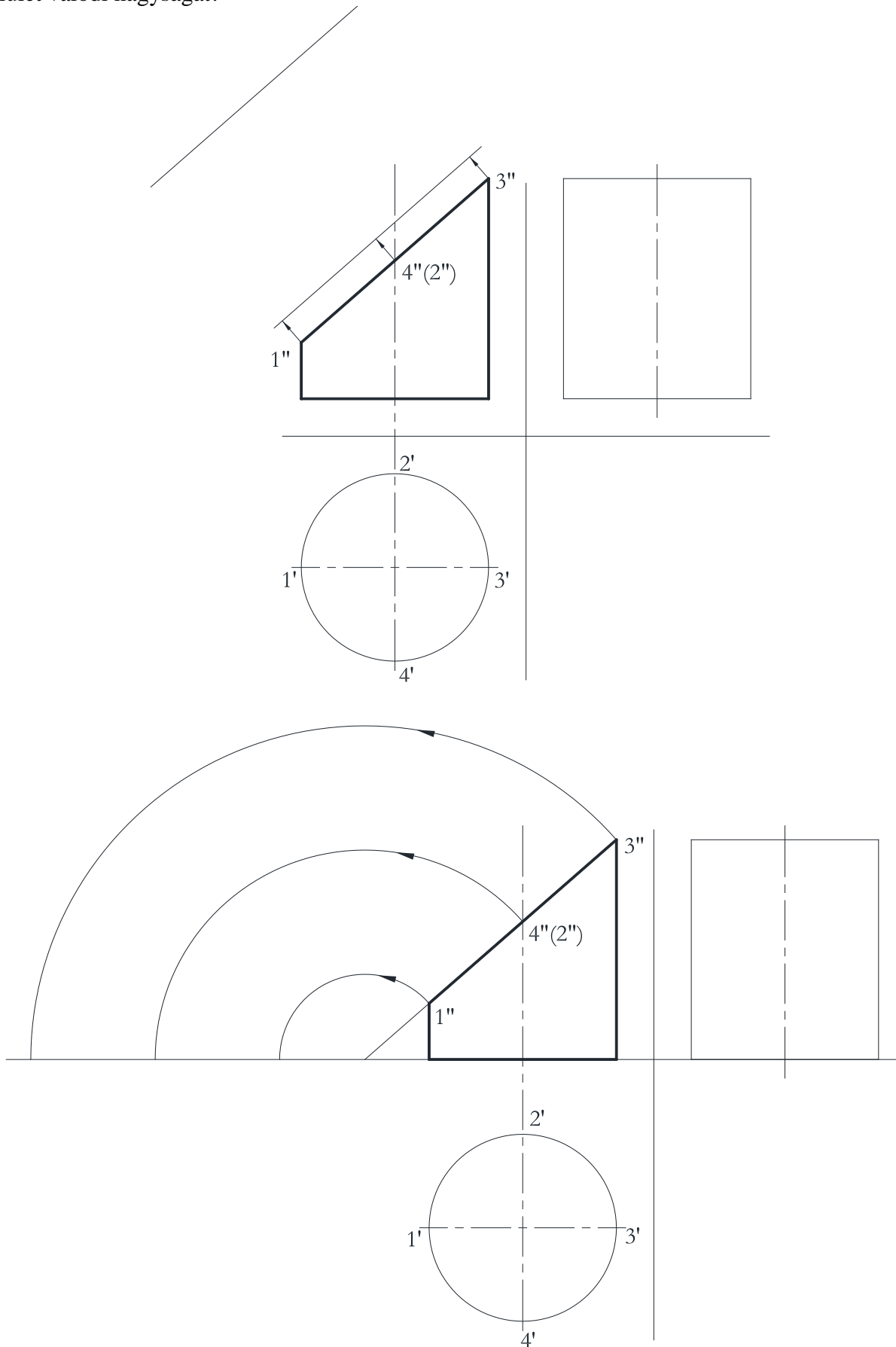


1. Rajzolja meg a gúla hiányzó vetületét, térhatású (axonometrikus) ábráját és a metszéssel keletkezett síkidom valódi nagyságát! Készítse el a gúla kiterített palástját!

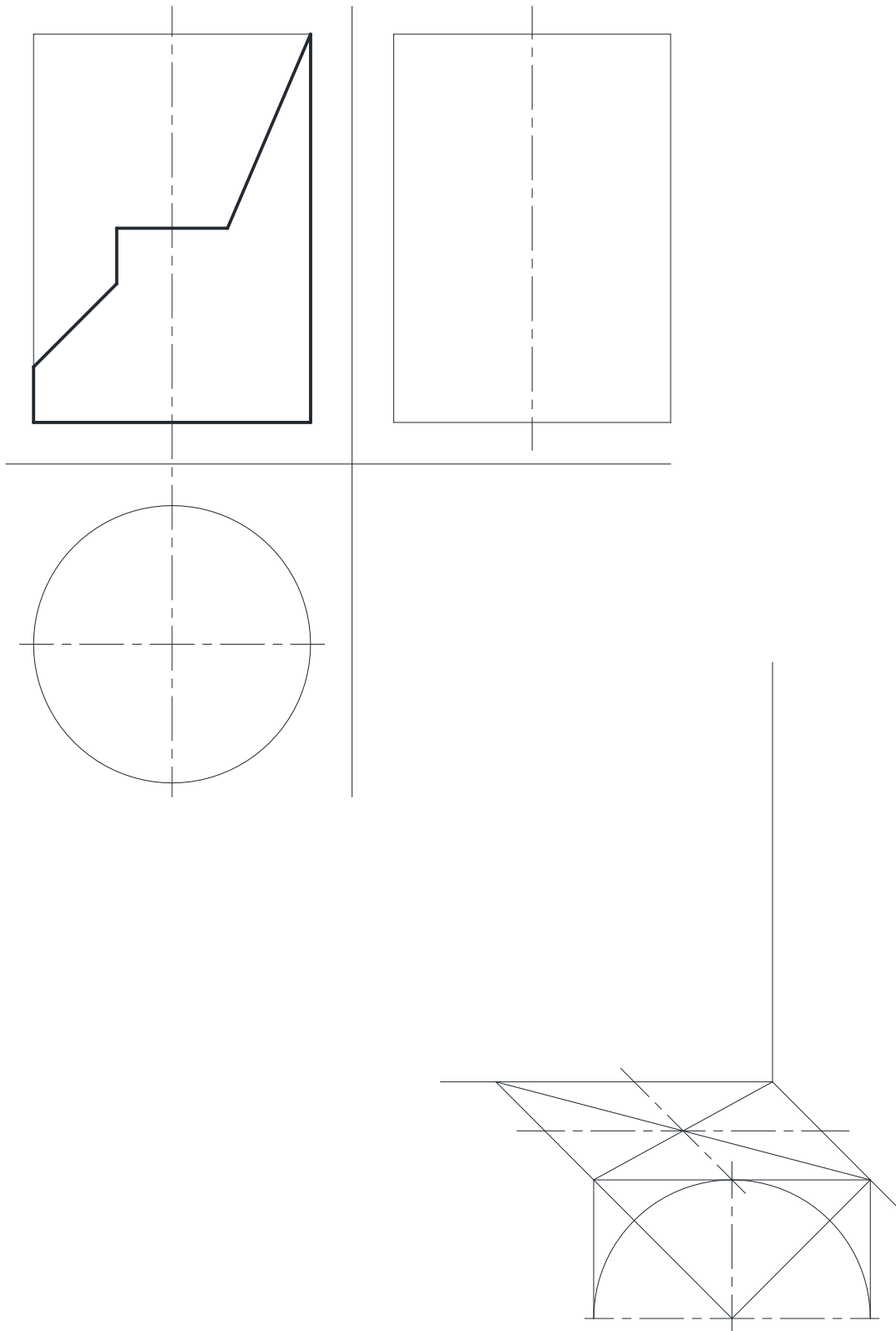


## 24. Munkalap

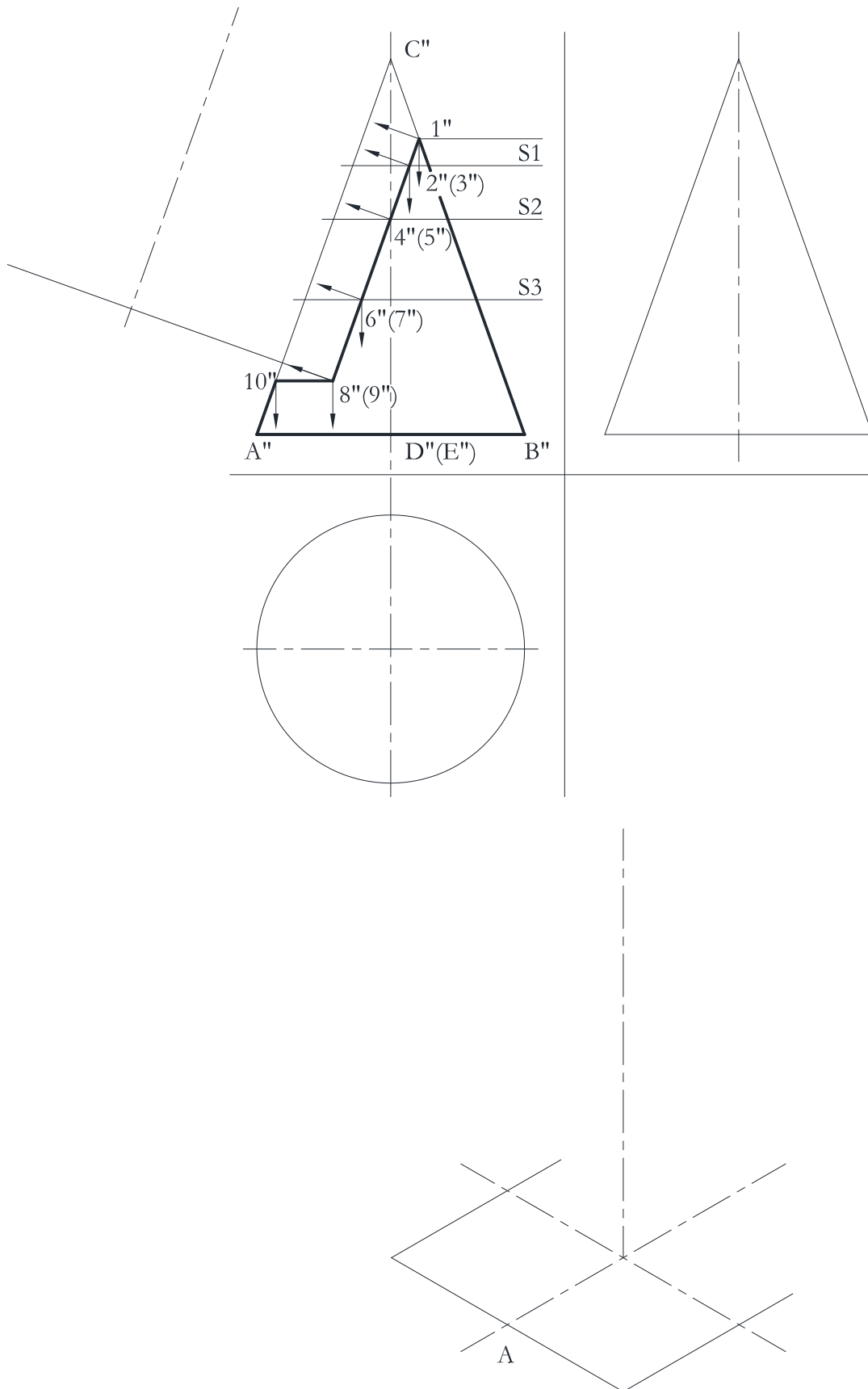
1. Rajzolja meg a csonkolt henger hiányzó vetületeit és szerkessze meg a síkmetszéssel keletkező felület valódi nagyságát!



1. Rajzolja meg a csonkolt henger hiányzó vetületeit és térhatású (axonometrikus) ábráját!

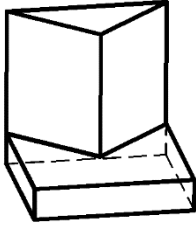


1. Rajzolja meg a csonkolt kúp hiányzó vetületeit, térhatású (axonometrikus) ábráját és a metszéssel keletkezett síkidom valódi nagyságát!

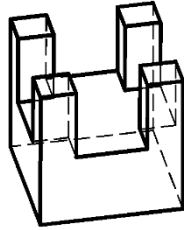


11. Az adott térhatású ábrához válasszuk ki a megfelelő elől-, felül-, és oldalnézetet!

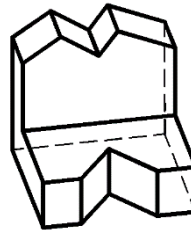
A



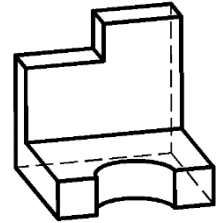
B



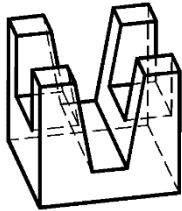
C



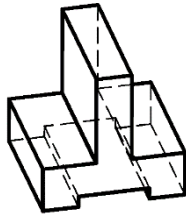
D



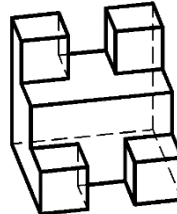
E



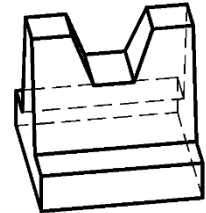
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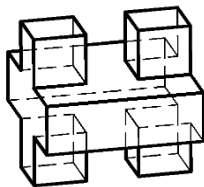
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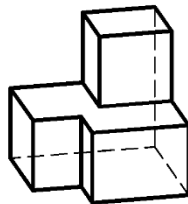
H



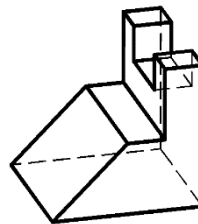
I



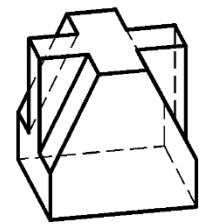
J



K



L

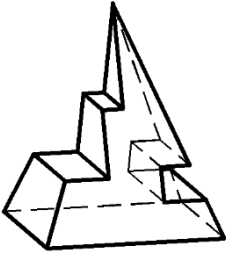
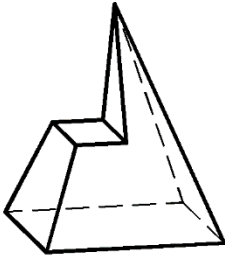
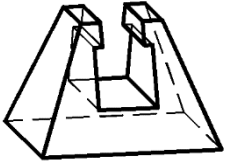
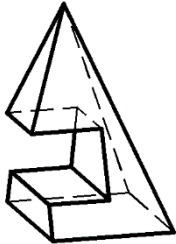
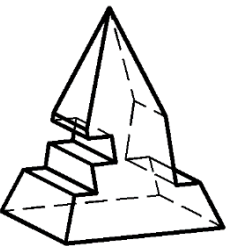
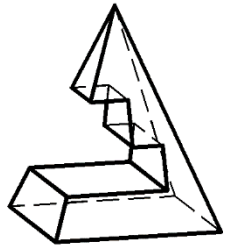
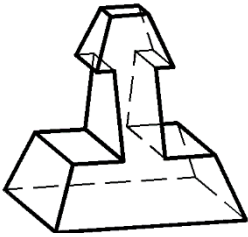
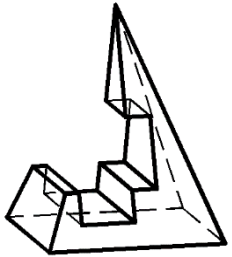
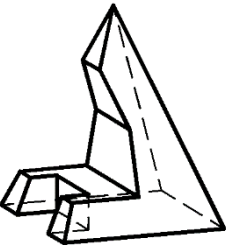
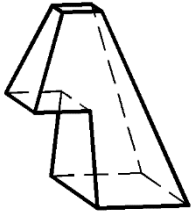
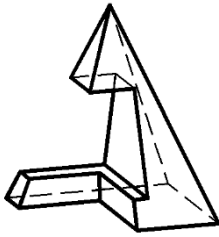
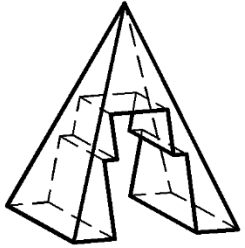
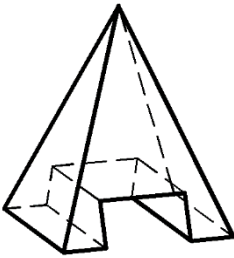
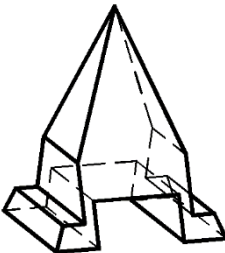
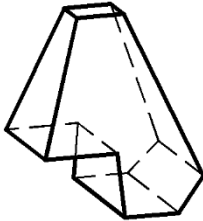
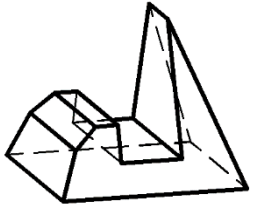



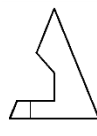
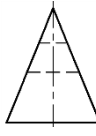
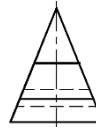
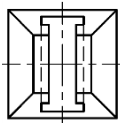
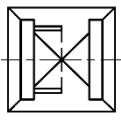
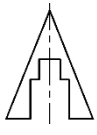

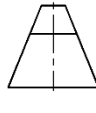
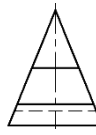
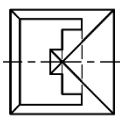
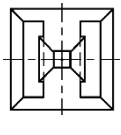

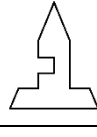
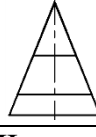
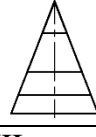
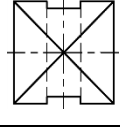
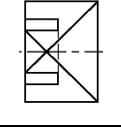


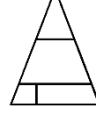
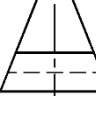
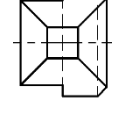
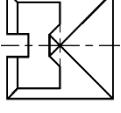

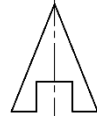
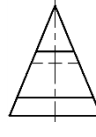
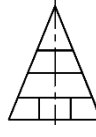
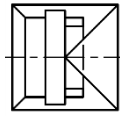
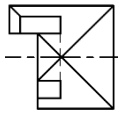

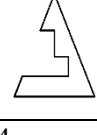

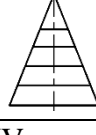
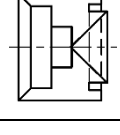
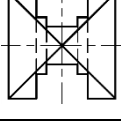

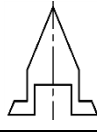
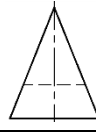
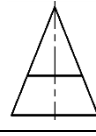
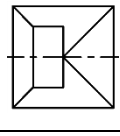
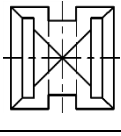




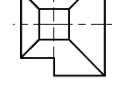
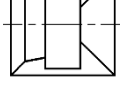
1.2		Elölnézet		Bal oldali nézet		Felülnézet					
1		2		I		II		a		b	
3		4		III		IV		c		d	
5		6		V		VI		e		f	
7		8		VII		VIII		g		h	
9		10		IX		X		i		j	
11		12		XI		XII		k		l	
13		14		XIII		XIV		m		n	
15		16		XV		XVI		o		p	



28.1 Munkalap

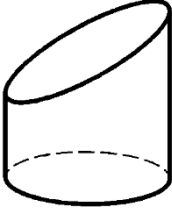
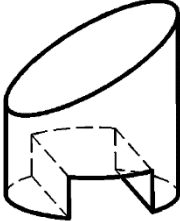
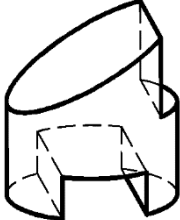
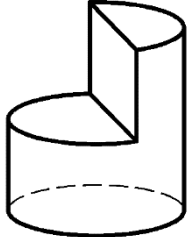
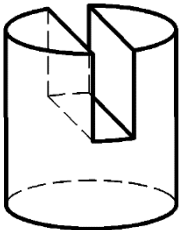
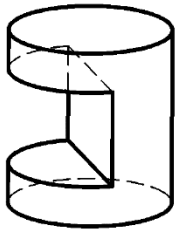
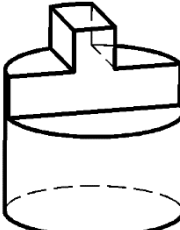
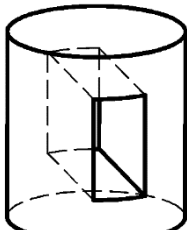
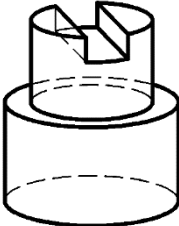
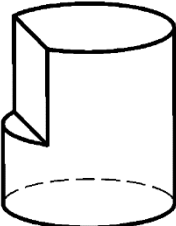
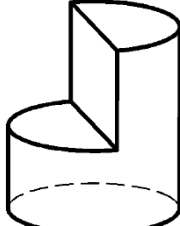
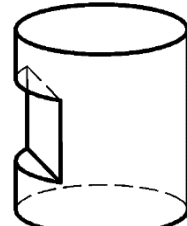
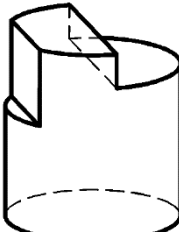
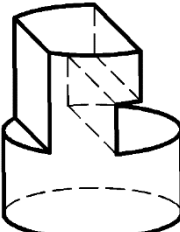
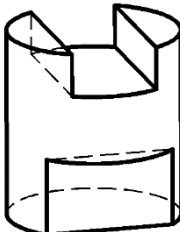
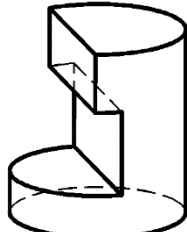
1.1 Az adott térhatású ábrához válasszuk ki a megfelelő elől-, felül-, és oldalnézetet!

<p>A</p> 	<p>B</p> 	<p>C</p> 	<p>D</p> 
<p>E</p> 	<p>F</p> 	<p>G</p> 	<p>H</p> 
<p>I</p> 	<p>J</p> 	<p>K</p> 	<p>L</p> 
<p>M</p> 	<p>N</p> 	<p>O</p> 	<p>P</p> 

1.2		Elölnézet		Bal oldali nézet		Felülnézet					
1		2		I		II		a		b	
3		4		III		IV		c		d	
5		6		V		VI		e		f	
7		8		VII		VIII		g		h	
9		10		IX		X		i		j	
11		12		XI		XII		k		l	
13		14		XIII		XIV		m		n	
15		16		XV		XVI		o		p	

29.1 Munkalap

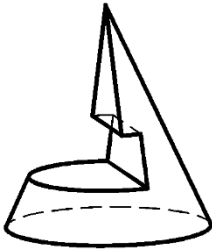
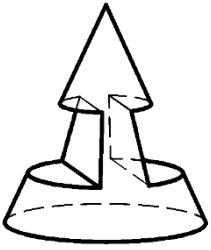
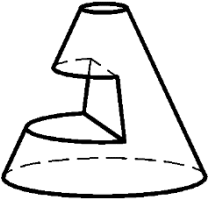
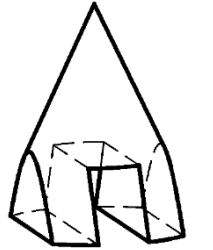
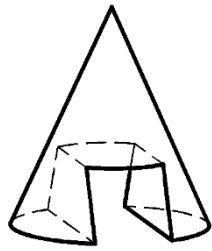
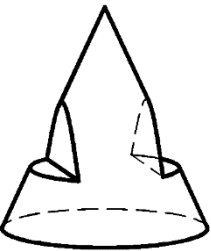
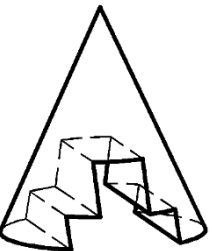
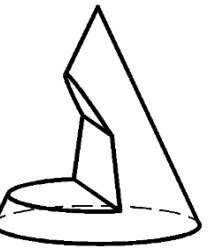
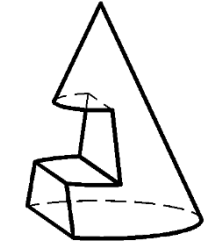
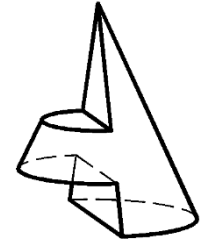
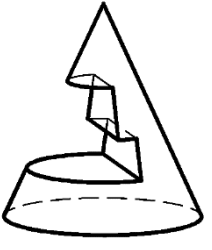
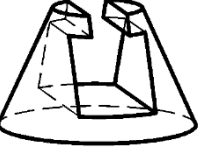
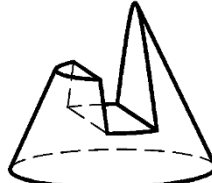
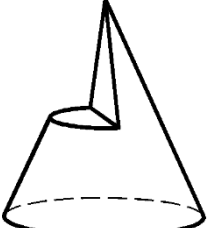
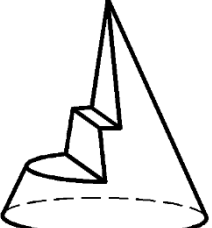
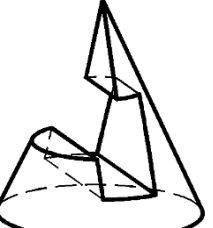
1.1 Az adott térhatású ábrához válasszuk ki a megfelelő elől-, felül-, és oldalnézetet!

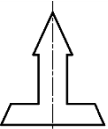
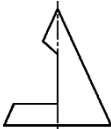
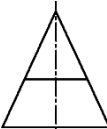
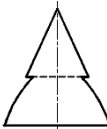
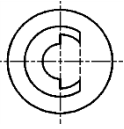
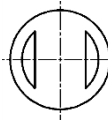
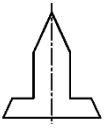
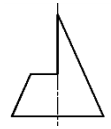
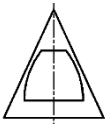
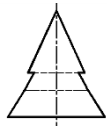
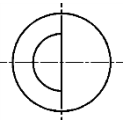
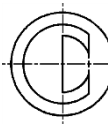
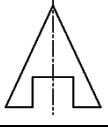
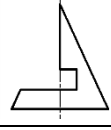
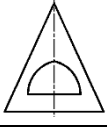
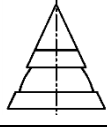
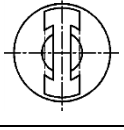
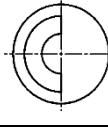
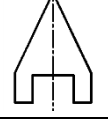
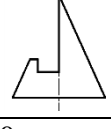
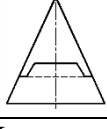
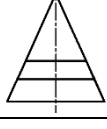
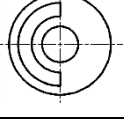
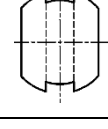
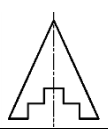
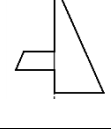
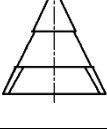
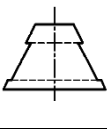
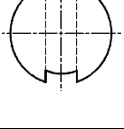
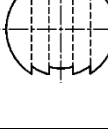
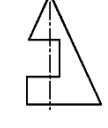

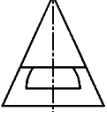
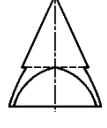
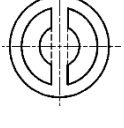
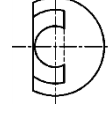
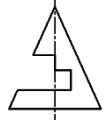
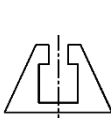
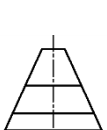
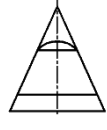
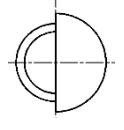
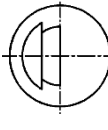
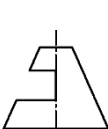
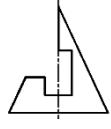
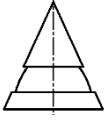
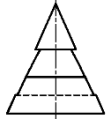
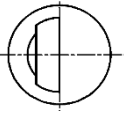
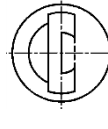
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<p>E</p> 	<p>F</p> 	<p>G</p> 	<p>H</p> 
<p>I</p> 	<p>J</p> 	<p>K</p> 	<p>L</p> 
<p>M</p> 	<p>N</p> 	<p>O</p> 	<p>P</p> 

1.2		Elölnézet		Bal oldali nézet		Felülnézet	
1		2		I		a	
3		4		III		c	
5		6		V		e	
7		8		VII		g	
9		10		IX		i	
11		12		XI		k	
13		14		XIII		m	
15		16		XV		o	
				II		b	
				IV		d	
				VI		f	
				VIII		h	
				X		j	
				XII		l	
				XIV		n	
				XVI		p	

30.1 Munkalap

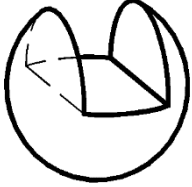
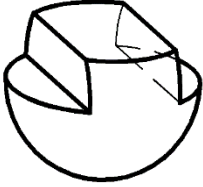
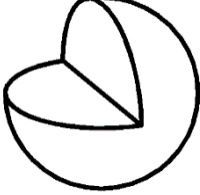
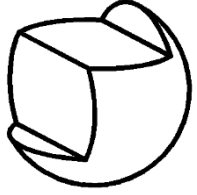
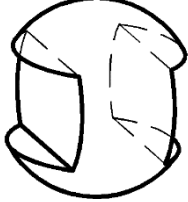
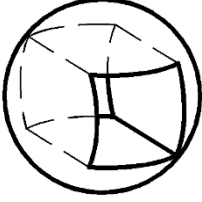
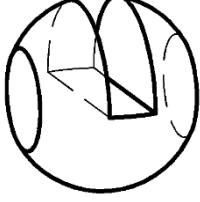
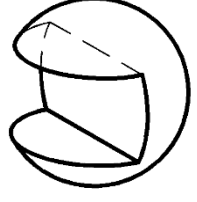
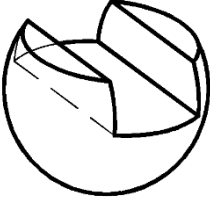
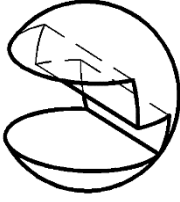
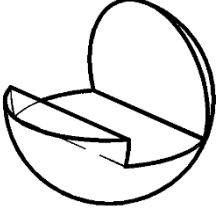
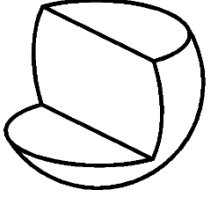
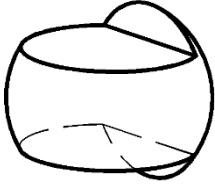
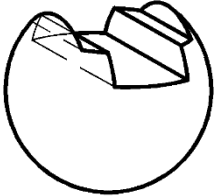
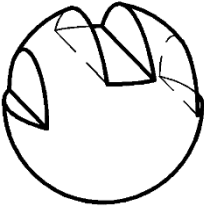
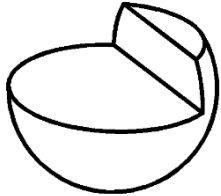
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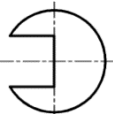
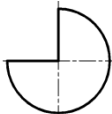
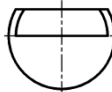
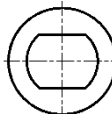
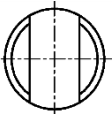
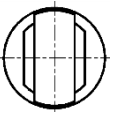
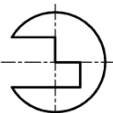
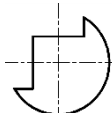
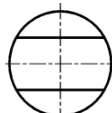
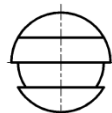
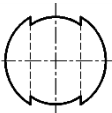
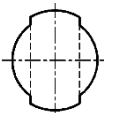
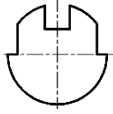
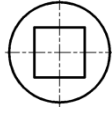
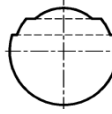
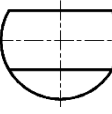
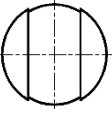
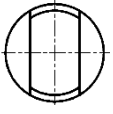
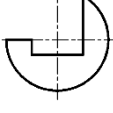
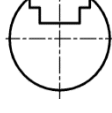
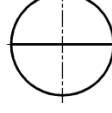
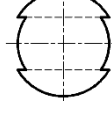
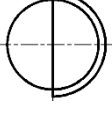
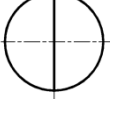
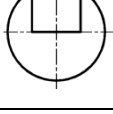
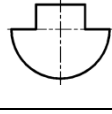
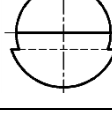
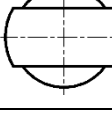
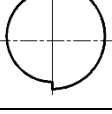
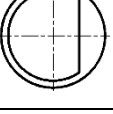
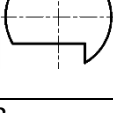
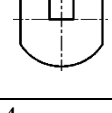
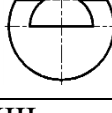
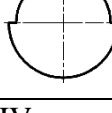
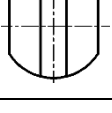
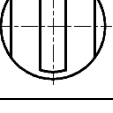
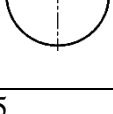
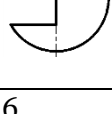
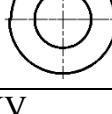

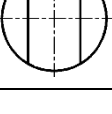
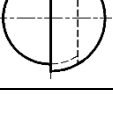
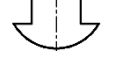

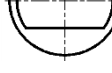

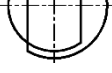

<p>A</p> 	<p>B</p> 	<p>C</p> 	<p>D</p> 
<p>E</p> 	<p>F</p> 	<p>G</p> 	<p>H</p> 
<p>I</p> 	<p>J</p> 	<p>K</p> 	<p>L</p> 
<p>M</p> 	<p>N</p> 	<p>O</p> 	<p>P</p> 

1.2		Elölnézet		Bal oldali nézet		Felülnézet					
1		2		I		II		a		b	
3		4		III		IV		c		d	
5		6		V		VI		e		f	
7		8		VII		VIII		g		h	
9		10		IX		X		i		j	
11		12		XI		XII		k		l	
13		14		XIII		XIV		m		n	
15		16		XV		XVI		o		p	

31.1 Munkalap

1.1 Az adott térhatású ábrához válasszuk ki a megfelelő elől-, felül-, és oldalnézetet!




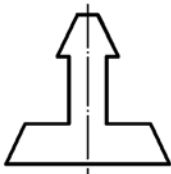
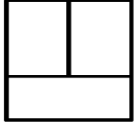
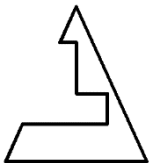

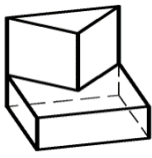

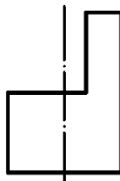
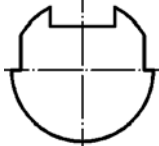
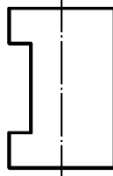
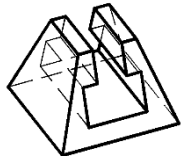
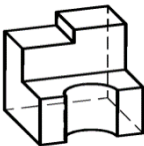
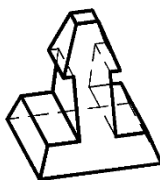
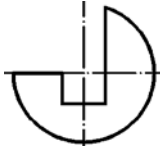
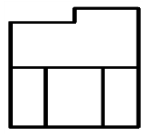
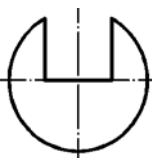


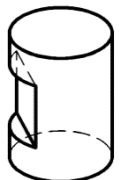
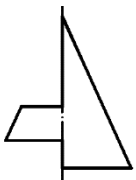
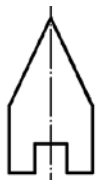
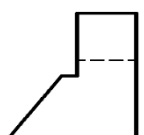
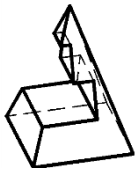
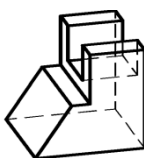
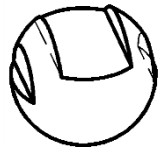
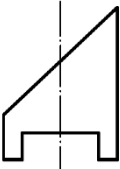
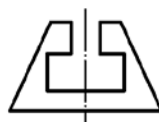
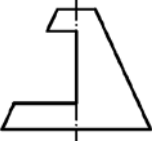
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<p>E</p> 	<p>F</p> 	<p>G</p> 	<p>H</p> 
<p>I</p> 	<p>J</p> 	<p>K</p> 	<p>L</p> 
<p>M</p> 	<p>N</p> 	<p>O</p> 	<p>P</p> 

1.2		Elölnézet		Bal oldali nézet		Felülnézet					
1		2		I		II		a		b	
3		4		III		IV		c		d	
5		6		V		VI		e		f	
7		8		VII		VIII		g		h	
9		10		IX		X		i		j	
11		12		XI		XII		k		l	
13		14		XIII		XIV		m		n	
15		16		XV		XVI		o		p	

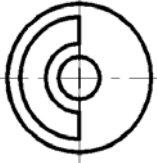
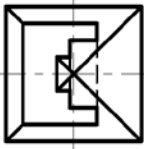
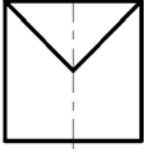
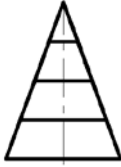
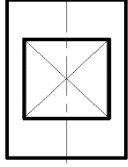
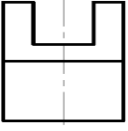
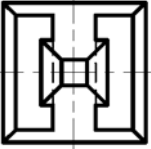
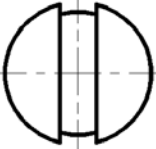
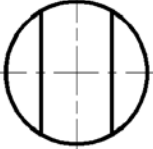
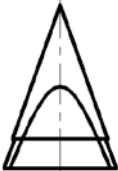
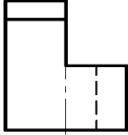
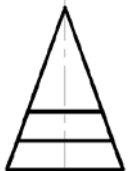
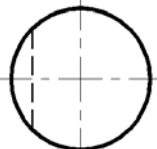
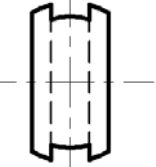
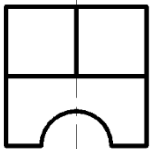
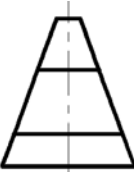
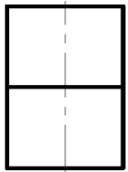
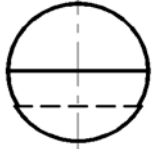
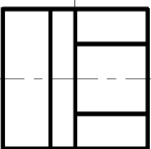
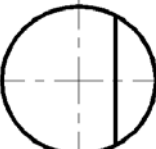
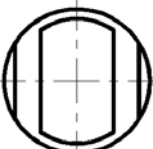
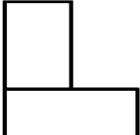
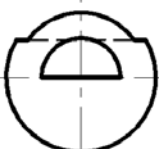
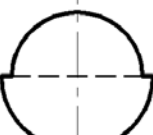
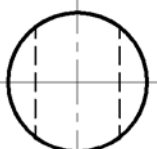
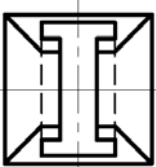
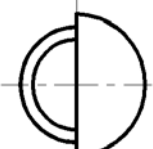
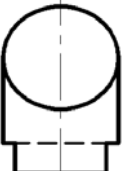
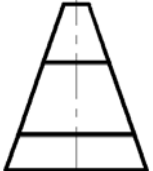
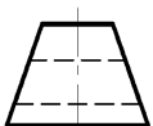


32.1 Munkalap

1.1 Az adott térhatású ábrákhoz válasszuk ki a megfelelő elől-, felül-, és oldalnézetet!

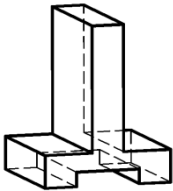
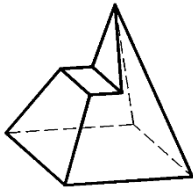
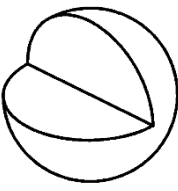
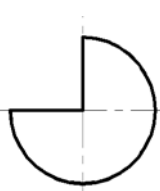
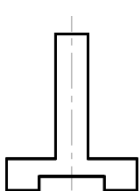
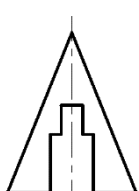
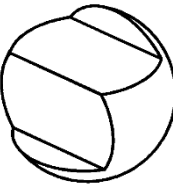
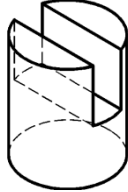


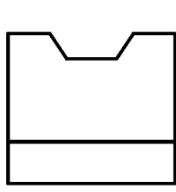
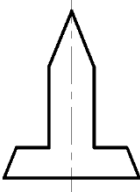
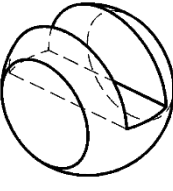
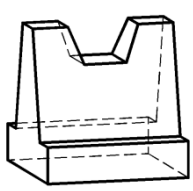
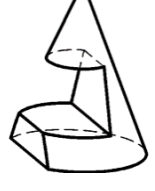
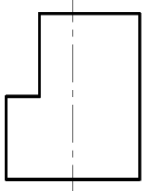
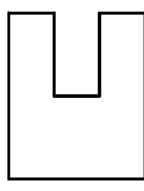
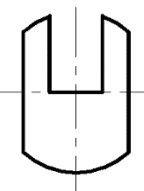
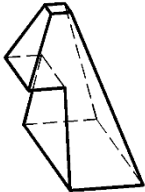

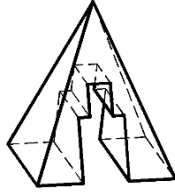
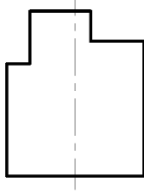
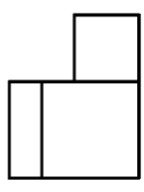
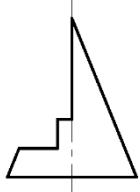
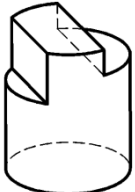
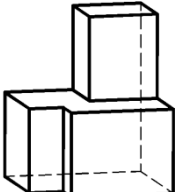
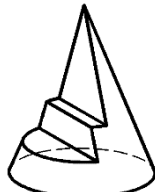
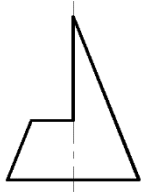

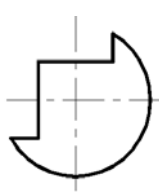
Axonometria			Előlnézet		
A	B	C	1	2	3
					
D	E	F	4	5	6
					
G	H	I	7	8	9
					
J	K	L	10	11	12
					
M	N	O	13	14	15
					

1.2

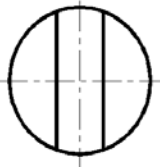
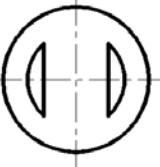
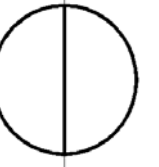
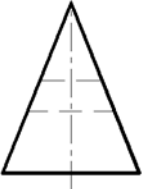
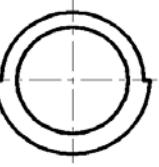
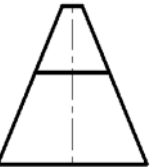
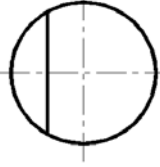
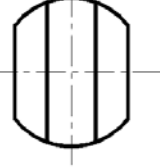
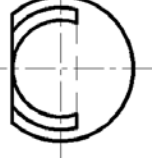
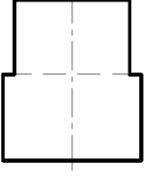
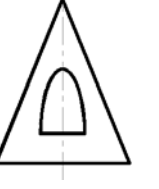
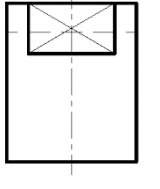
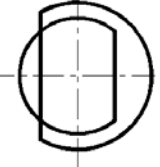
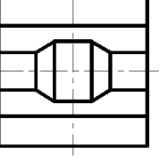
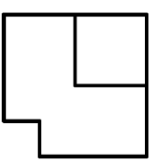
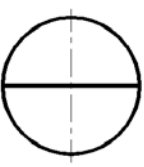
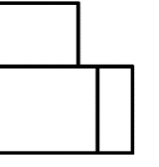
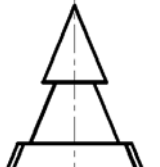
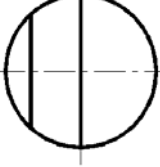
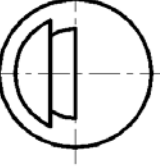
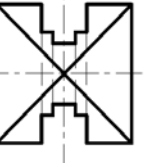
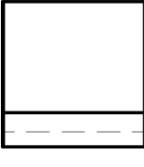
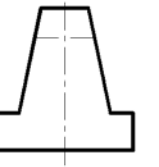
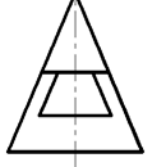
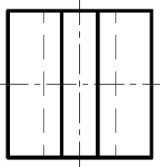
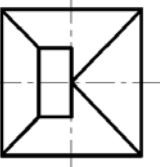
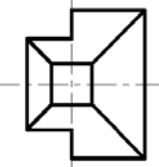
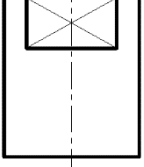
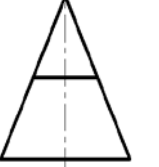
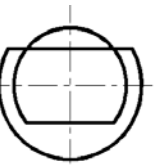
Felülnézet			Bal oldali nézet		
a	b	c	I	II	III
					
d	e	f	IV	V	VI
					
g	h	i	VII	VIII	IX
					
j	k	l	X	XI	XII
					
m	n	o	XIII	XIV	XV
					

### 33.1 Munkalap

1.1 Az adott térhatású ábrákhoz válasszuk ki a megfelelő elől-, felül-, és oldalnézetet!

Axonometria			Előlnézet		
A	B	C	1	2	3
					
D	E	F	4	5	6
					
G	H	I	7	8	9
					
J	K	L	10	11	12
					
M	N	O	13	14	15
					

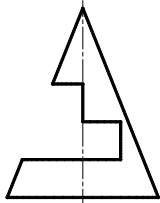
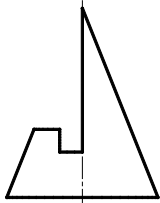
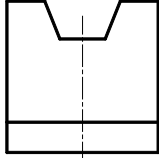
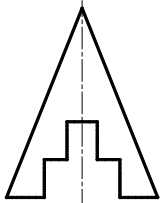
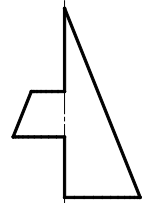
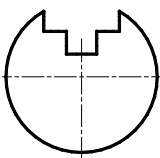
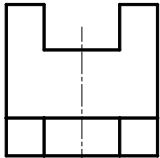
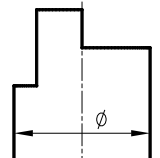
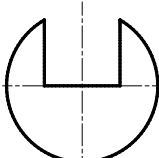
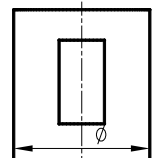
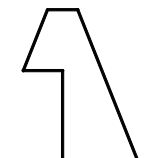
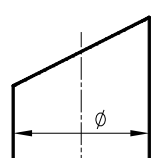
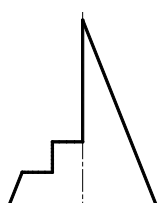
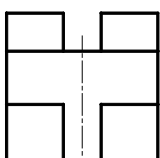
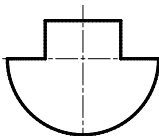
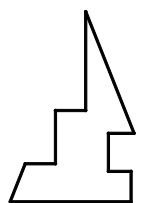
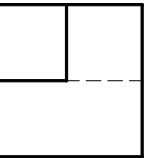
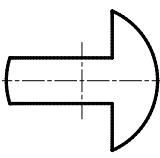
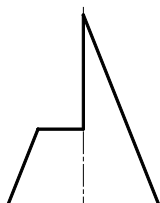
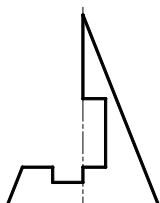
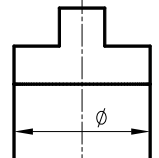
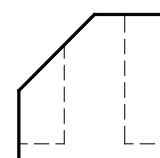
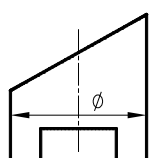
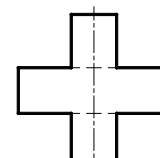
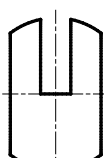
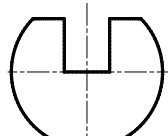
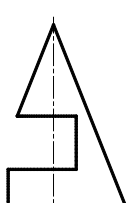

1.2

Felülnézet			Bal oldali nézet		
a	b	c	I	II	III
					
d	e	f	IV	V	VI
					
g	h	i	VII	VIII	IX
					
j	k	l	X	XI	XII
					
m	n	o	XIII	XIV	XV
					

34.1 Munkalap

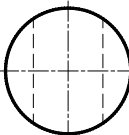
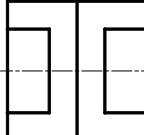
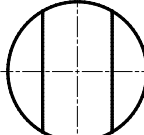
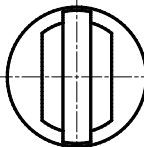
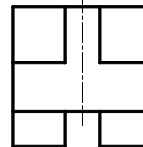
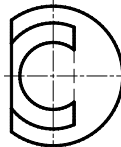
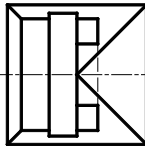
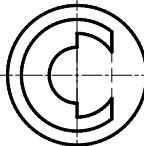
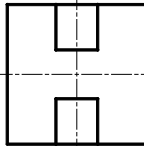
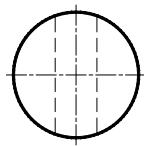
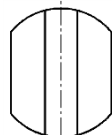
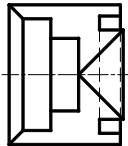
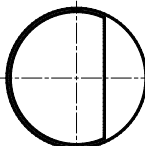
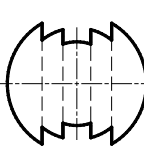
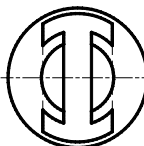
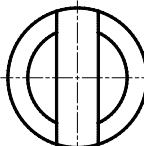
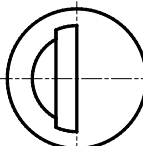
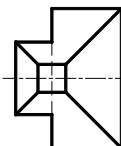
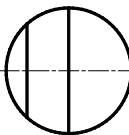
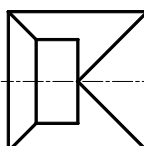
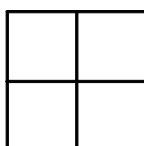
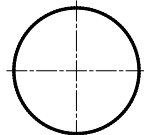
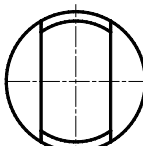
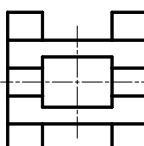
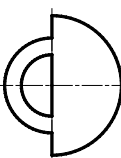
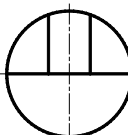
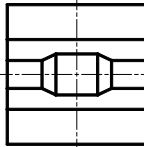
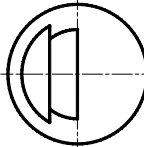
1.1 Az adott előlnézeti képhez válasszuk ki a megfelelő felülnézeti képet és bal oldali nézetet!

Előlnézet

1	2	3	4	5	6
					
7	8	9	10	11	12
					
13	14	15	16	17	18
					
19	20	21	22	23	24
					
25	26	27	28		
					

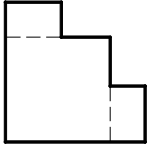
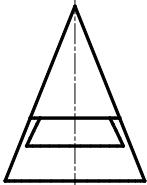
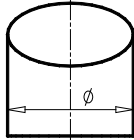
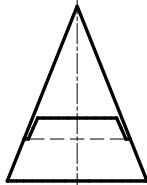
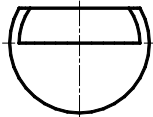
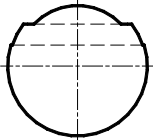
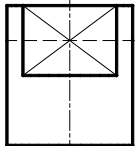
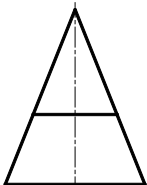
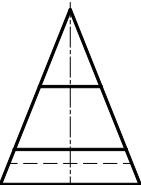
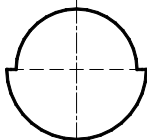
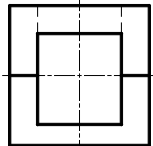
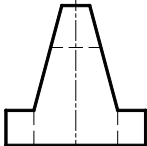
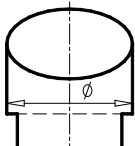
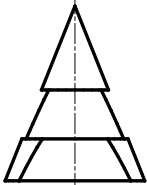
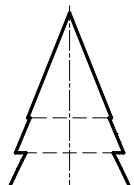
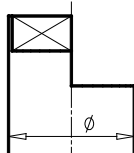
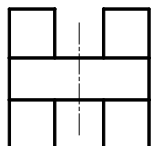
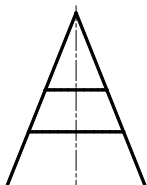
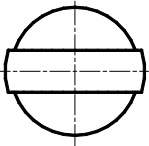
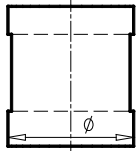
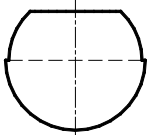
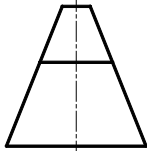
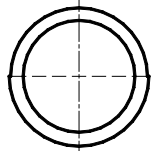
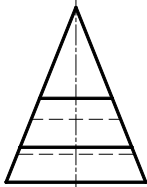
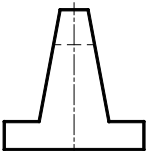
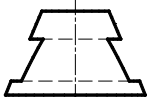
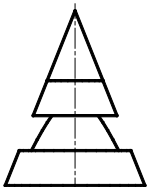
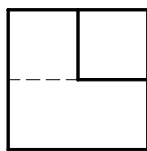
1.2

Felülnézet

A 	B 	C 	D 	E 	F 
G 	H 	I 	J 	K 	L 
M 	N 	O 	Ö 	P 	Q 
R 	S 	T 	U 	Ü 	V 
W 	X 	Y 	Z 		

1.3

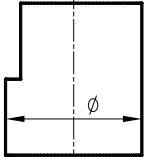
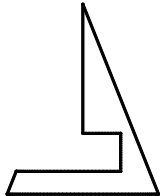
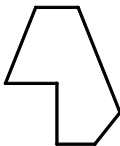
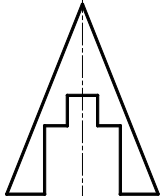
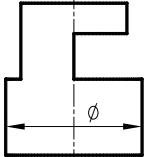
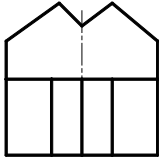
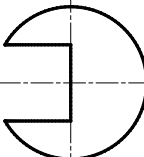
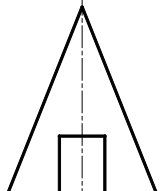
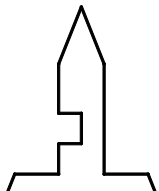
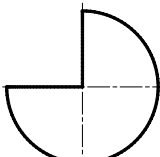
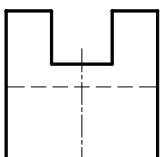
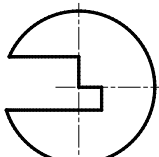
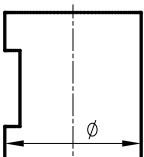
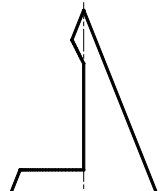
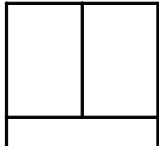
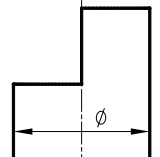
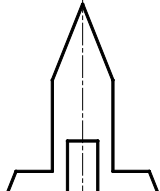
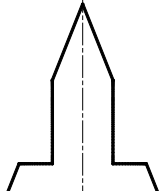
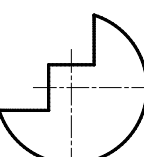
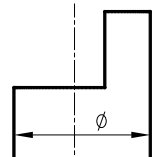
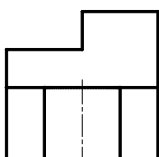
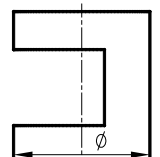
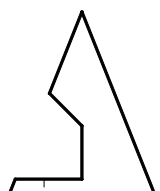
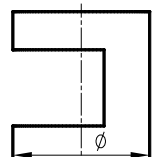
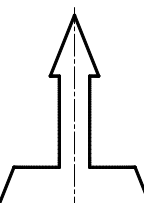
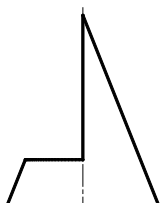
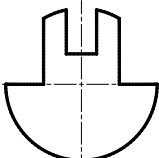
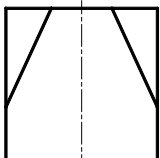
Bal oldali nézet

a	b	c	d	e	f
					
g	h	i	j	k	l
					
m	n	o	ö	p	q
					
r	s	t	u	ü	v
					
w	x	y	z		
					

### 35.1 Munkalap

1.1 Az adott előlnézeti képhez válasszuk ki a megfelelő felülnézeti képet és bal oldali nézetet!

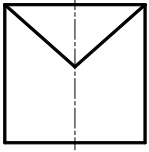
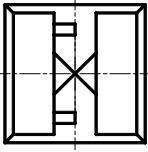
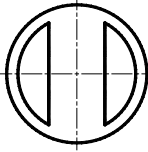
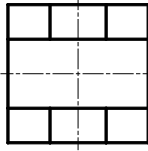
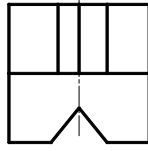
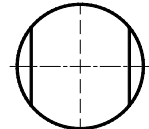
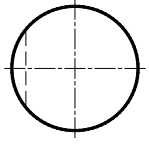
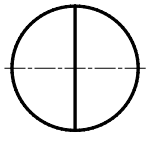
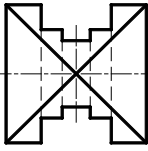
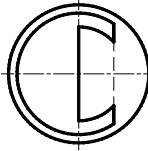
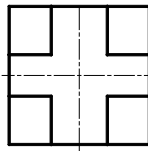
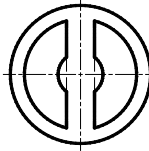
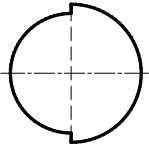
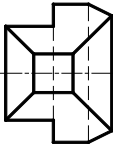
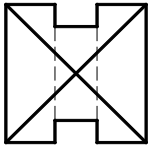
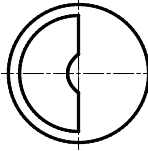
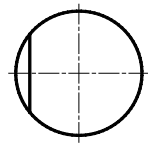
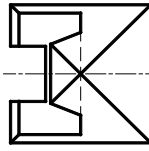
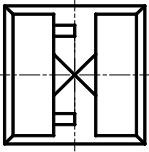
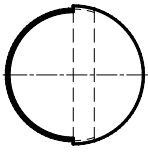
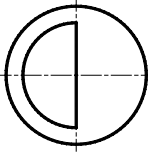
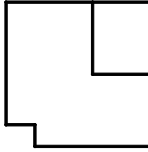
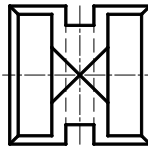
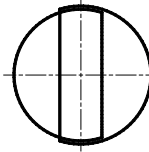
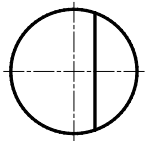
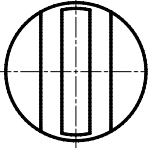
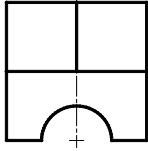
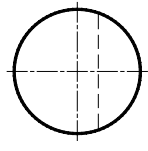
Előlnézet

1	2	3	4	5	6
					
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13	14	15	16	17	18
					
19	20	21	22	23	24
					
25	26	27	28		
					



1.2

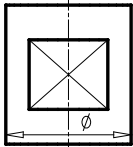
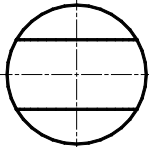
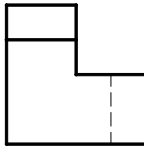
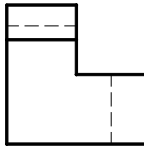
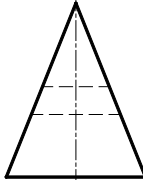
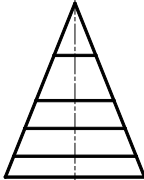
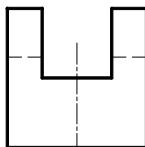
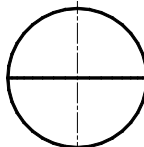
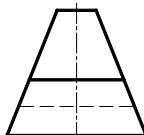
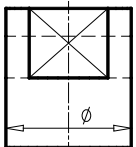
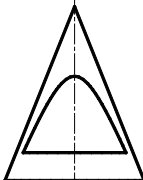
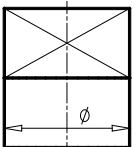
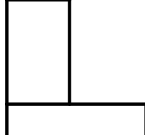
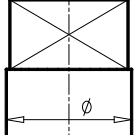
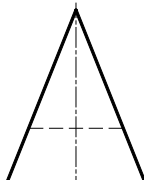
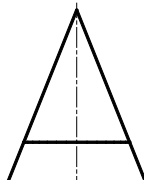
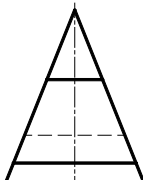
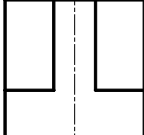
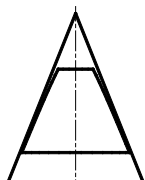
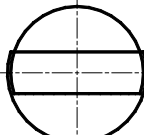
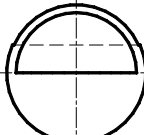
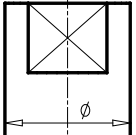
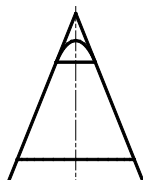
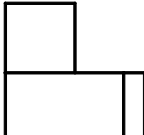
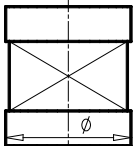
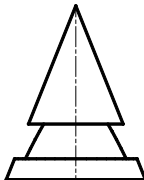
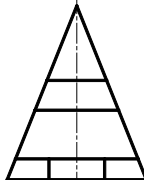
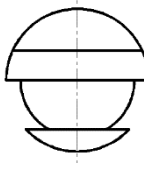
Felülnézet

<p>A</p> 	<p>B</p> 	<p>C</p> 	<p>D</p> 	<p>E</p> 	<p>F</p> 
<p>G</p> 	<p>H</p> 	<p>I</p> 	<p>J</p> 	<p>K</p> 	<p>L</p> 
<p>M</p> 	<p>N</p> 	<p>O</p> 	<p>Ö</p> 	<p>P</p> 	<p>Q</p> 
<p>R</p> 	<p>S</p> 	<p>T</p> 	<p>U</p> 	<p>Ü</p> 	<p>V</p> 
<p>W</p> 	<p>X</p> 	<p>Y</p> 	<p>Z</p> 		

35.3 Munkalap

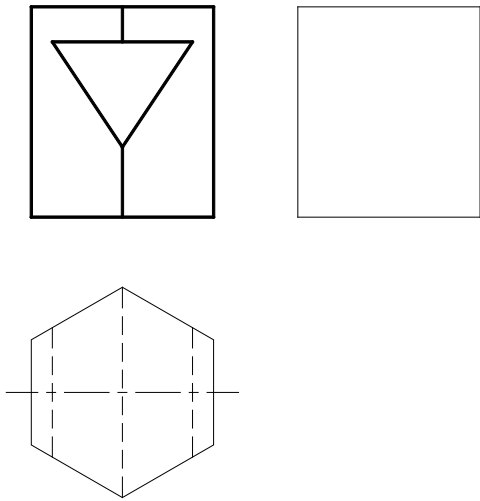
1.3

Bal oldali nézet

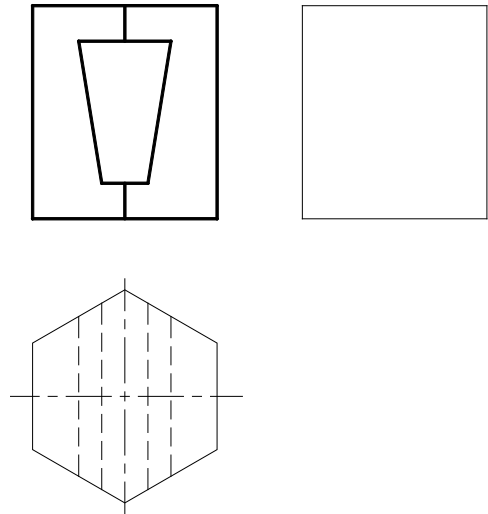
a	b	c	d	e	f
					
g	h	i	j	k	l
					
m	n	o	ö	p	q
					
r	s	t	u	ü	v
					
w	x	y	z		
					

1. Rajzoljuk meg belátás alapján (szerkesztés nélkül) a síkmetszett testek hiányzó vetületeit!

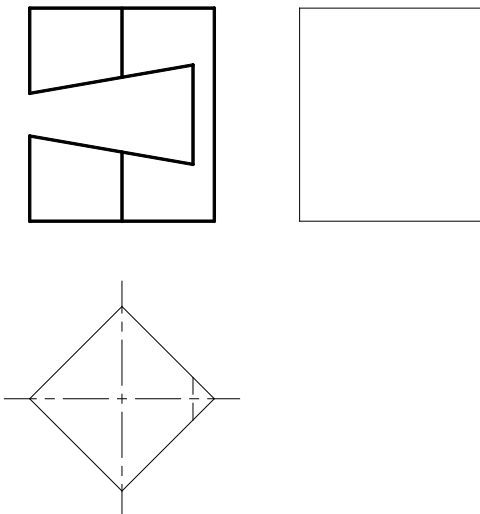
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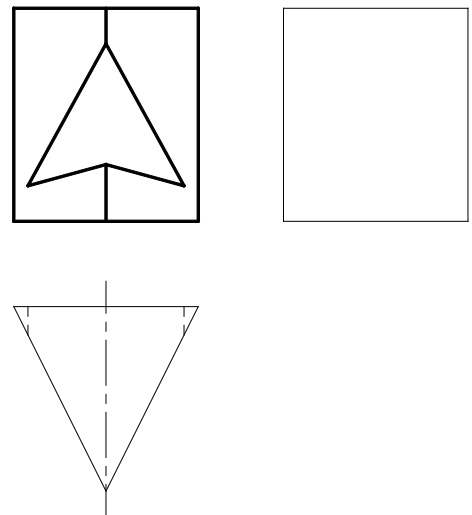
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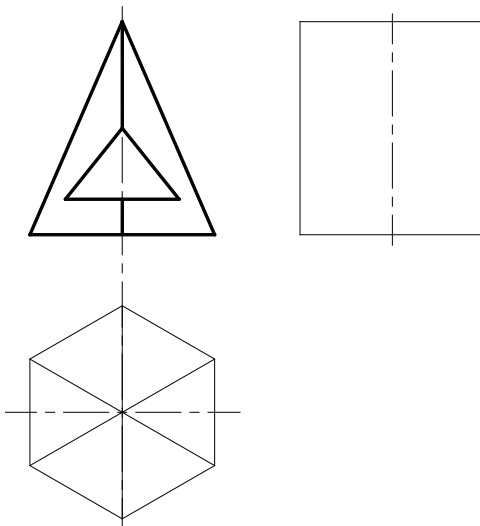
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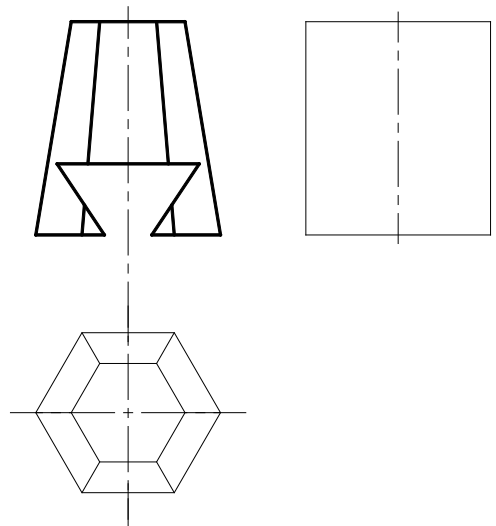
d



e

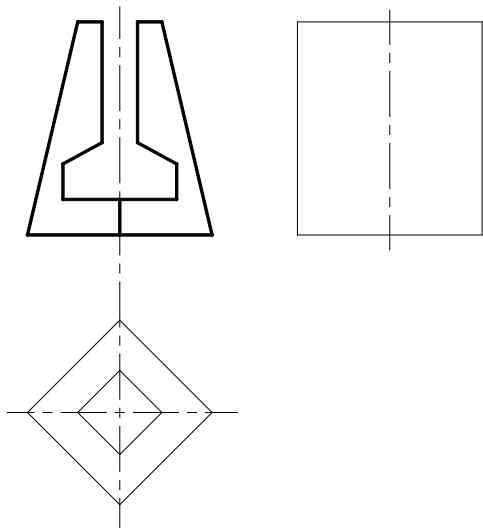


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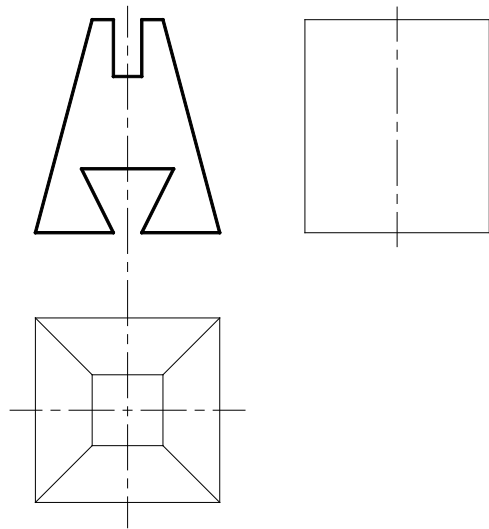


1. Rajzoljuk meg belátás alapján (szerkesztés nélkül) a síkmetszett testek hiányzó vetületeit!

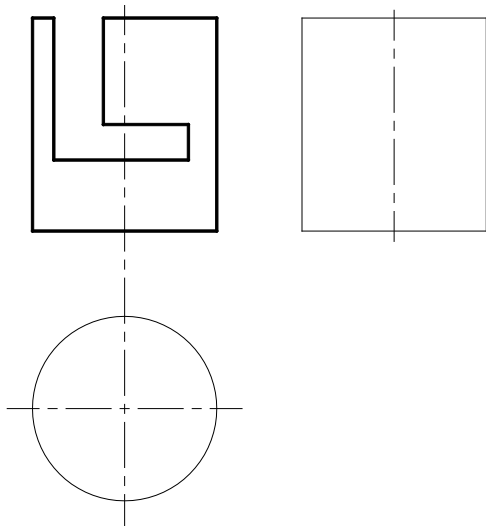
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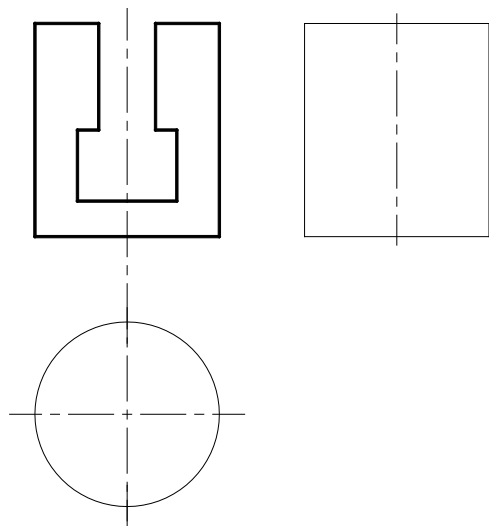
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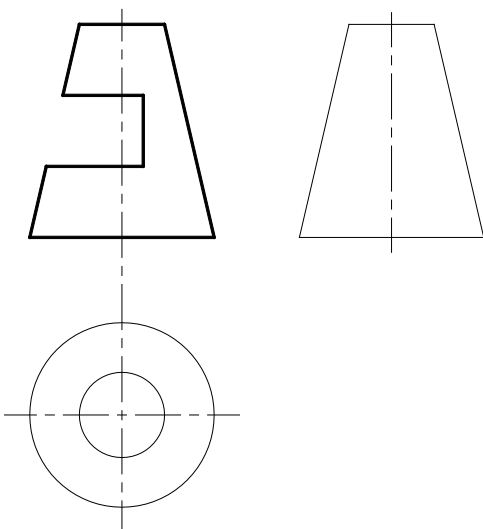
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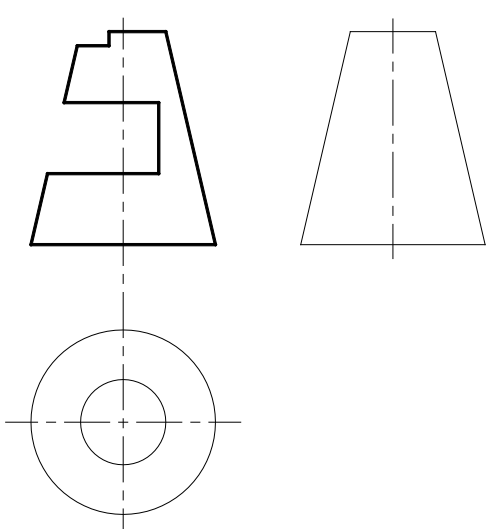
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e

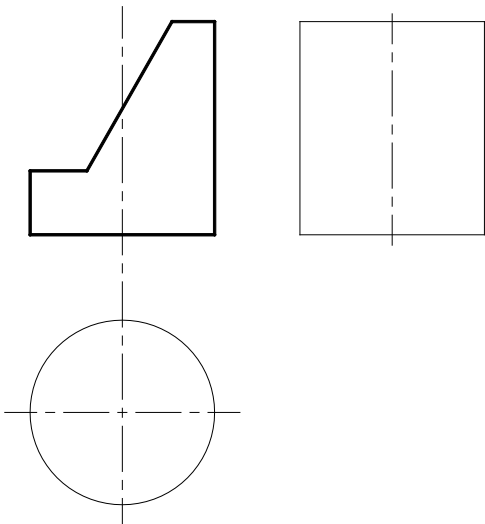


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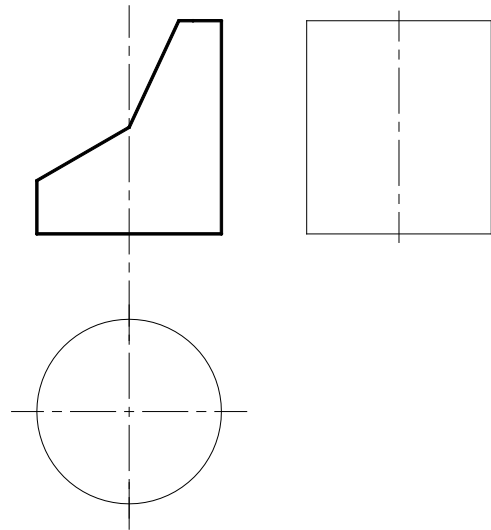


1. Rajzoljuk meg belátás alapján (szerkesztés nélkül) a síkmetszett testek áthatásinak hiányzó vetületeit!

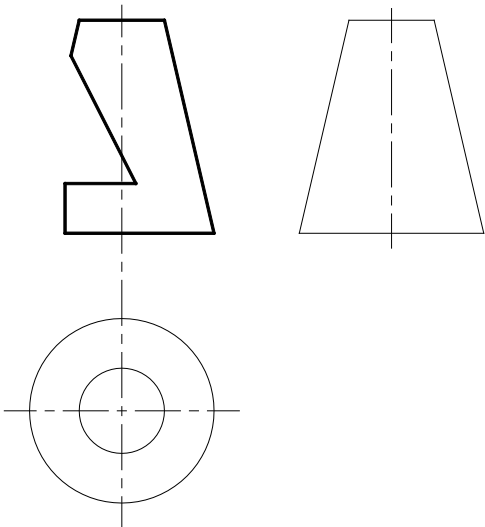
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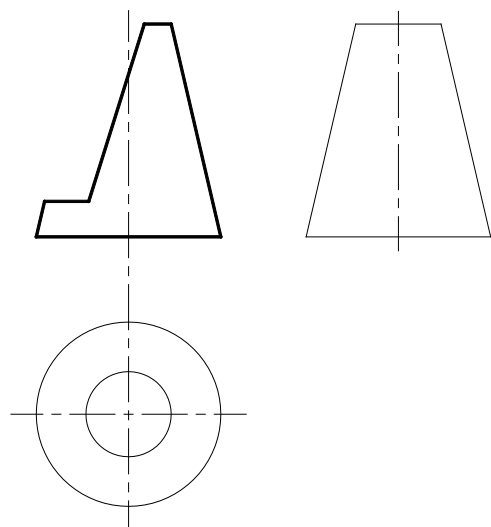
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c



d

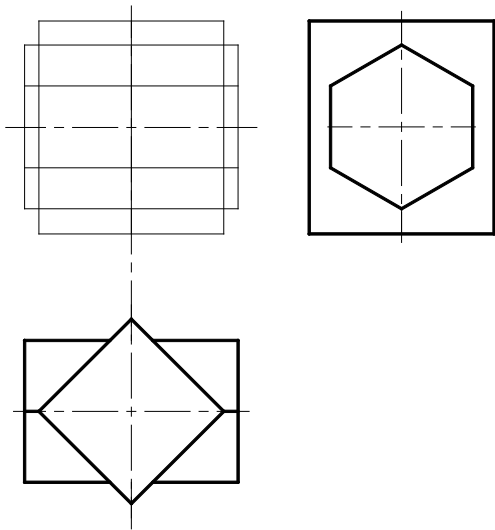


e

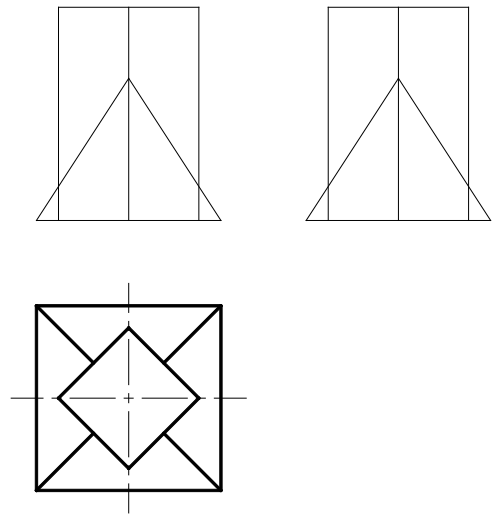
f

1. Rajzoljuk meg belátás alapján (szerkesztés nélkül) az alábbi tömör testek áthatását!

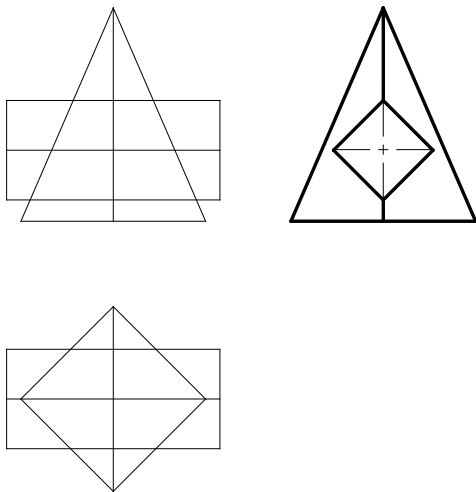
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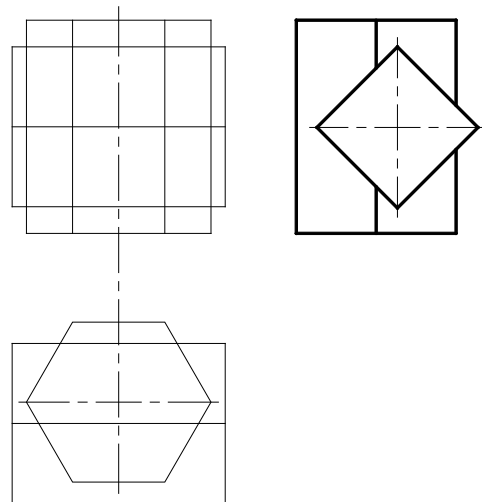
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c



d

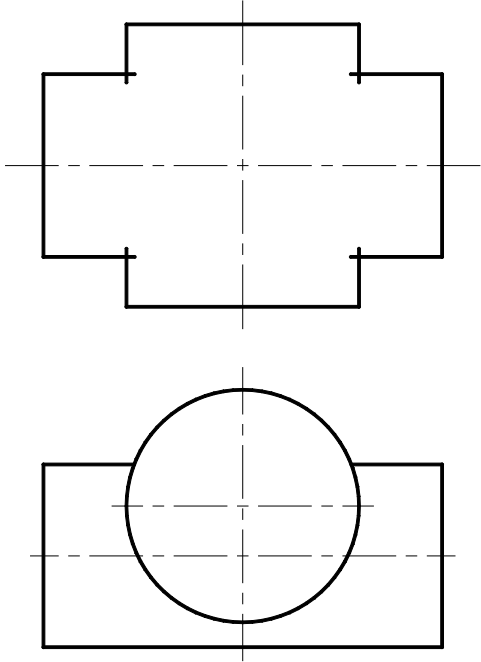


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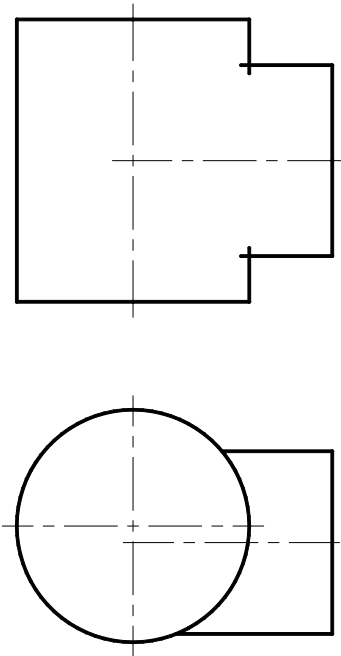
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1. Rajzoljuk meg az alábbi tömör testek áthatását belátás alapján!

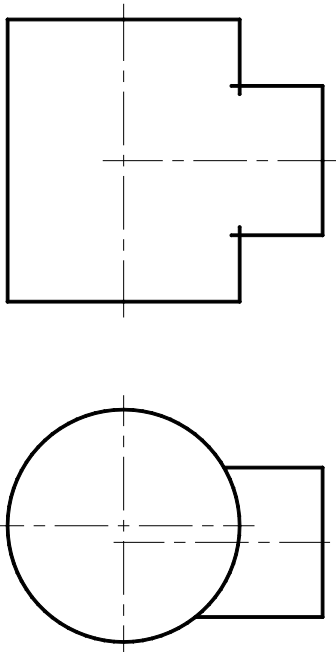
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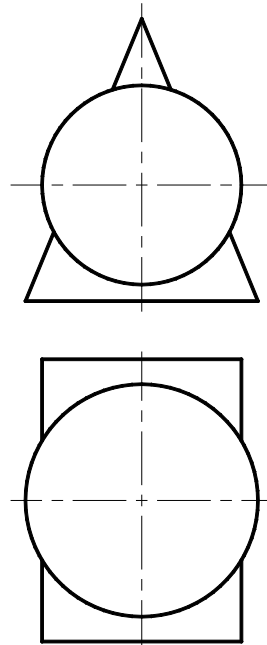
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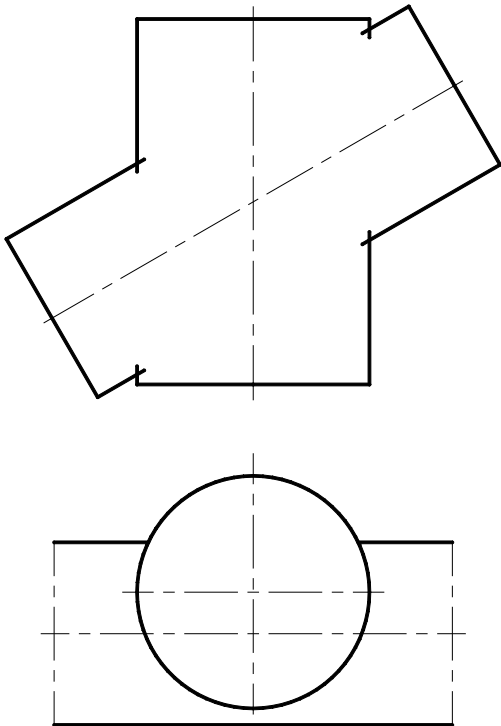


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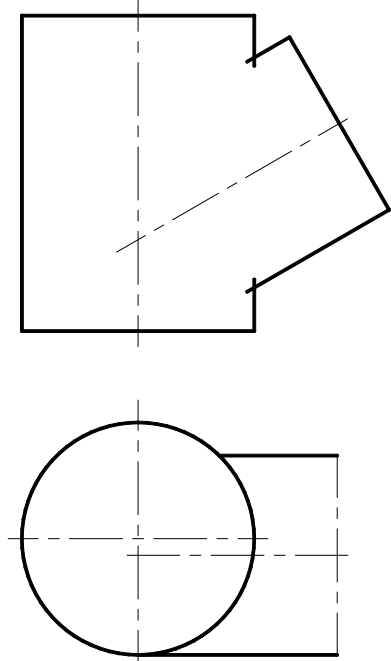


1. Rajzoljuk meg az alábbi tömör testek áthatását belátás alapján!

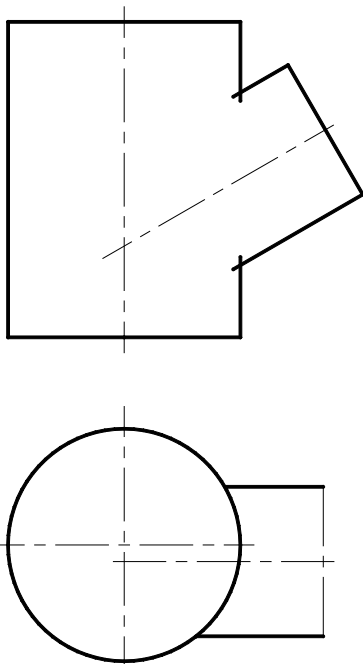
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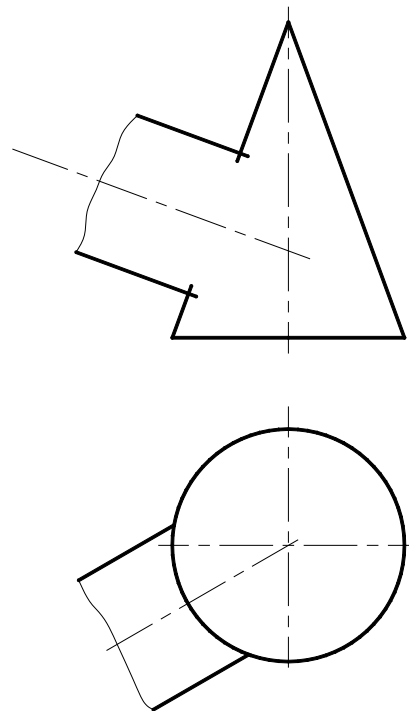
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g



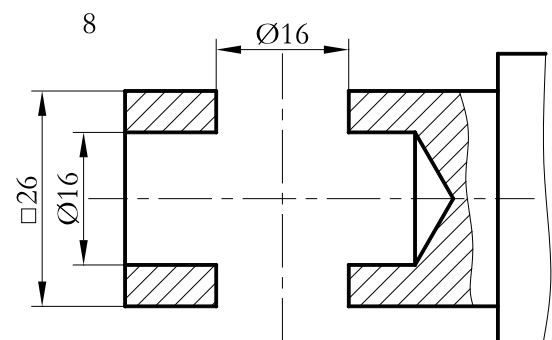
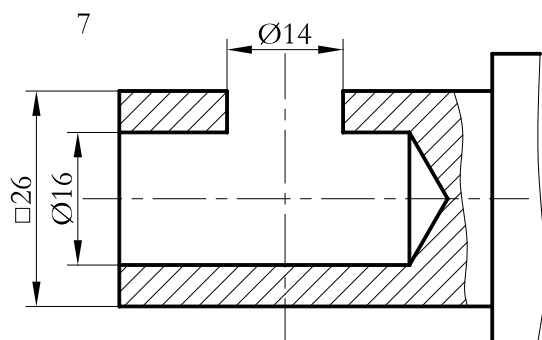
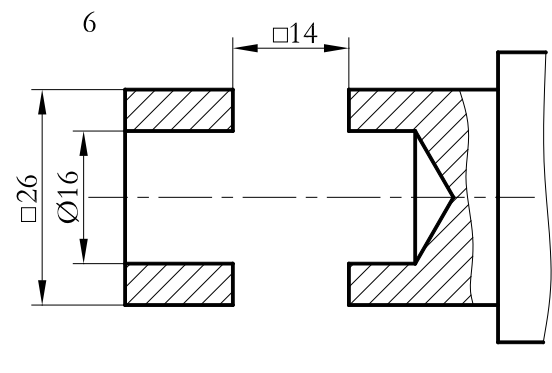
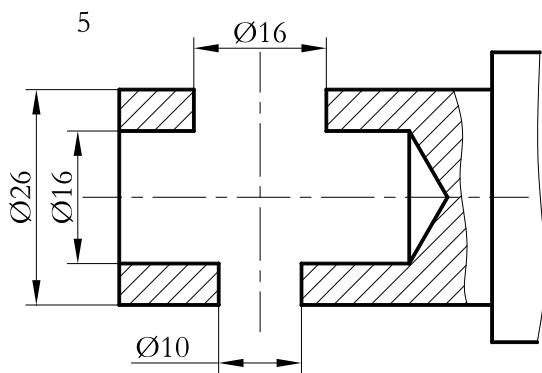
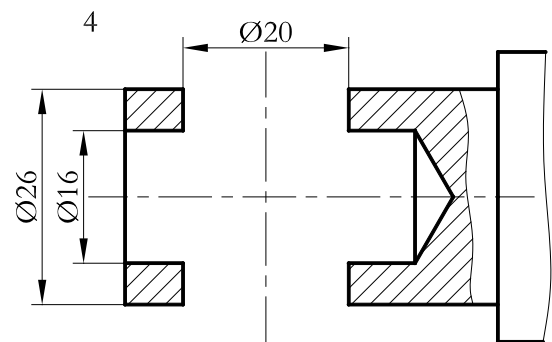
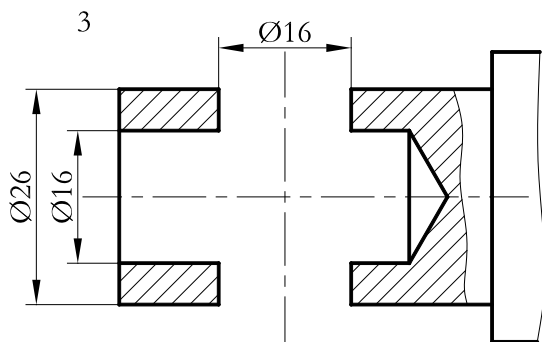
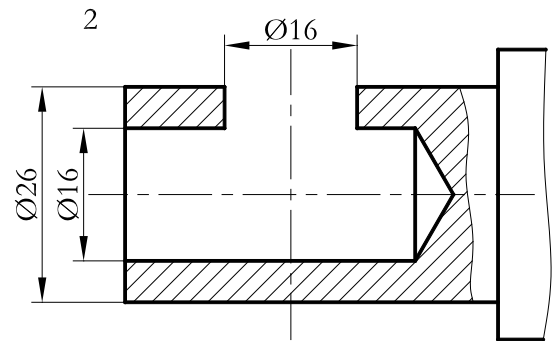
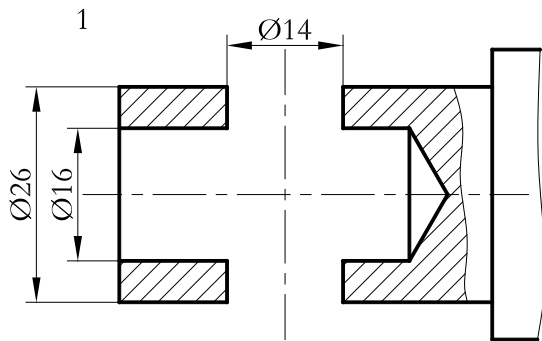
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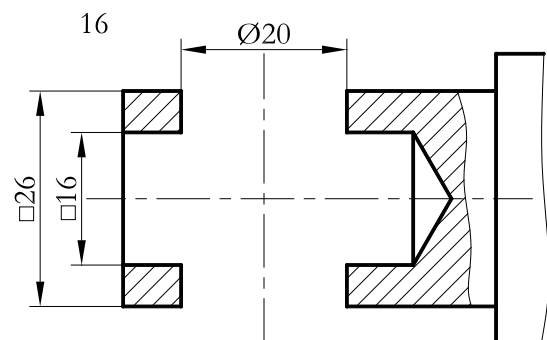
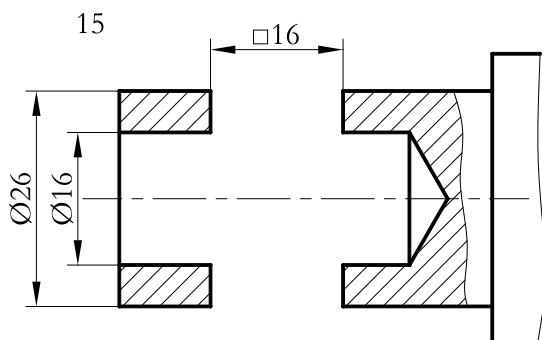
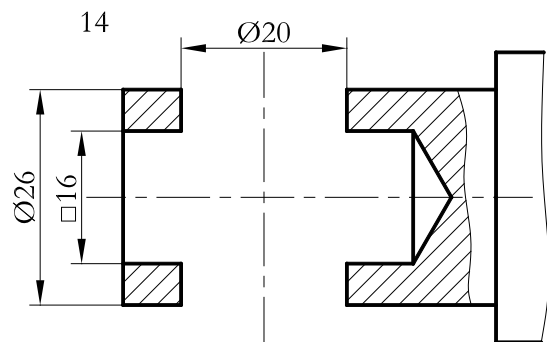
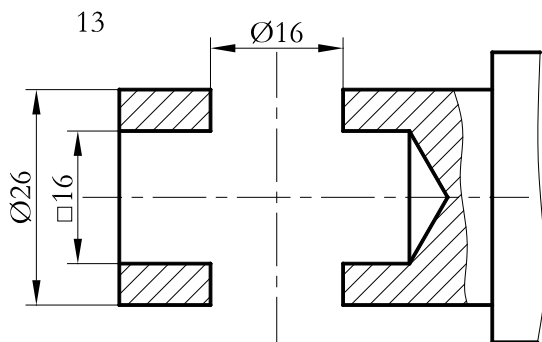
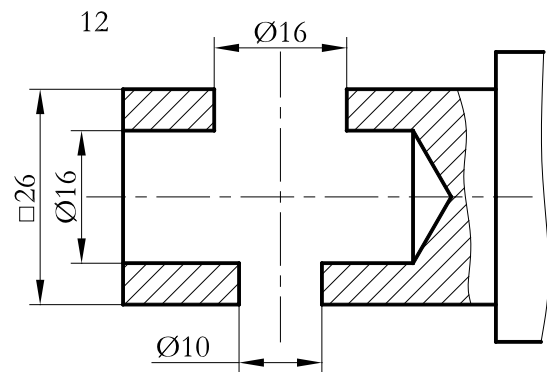
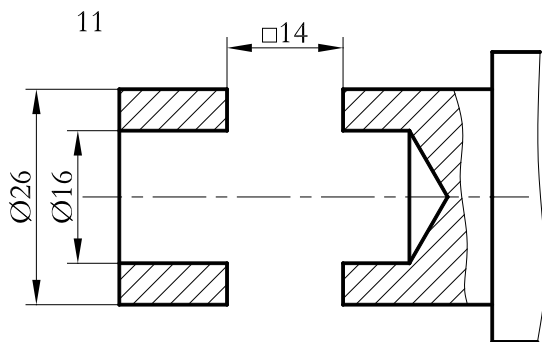
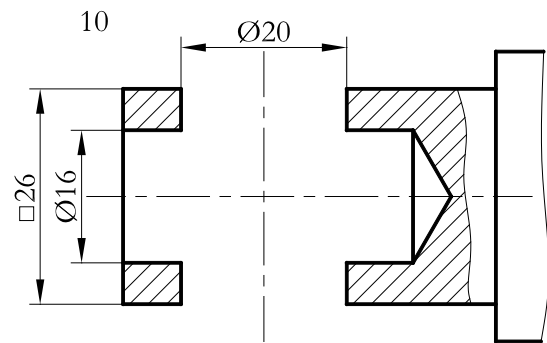
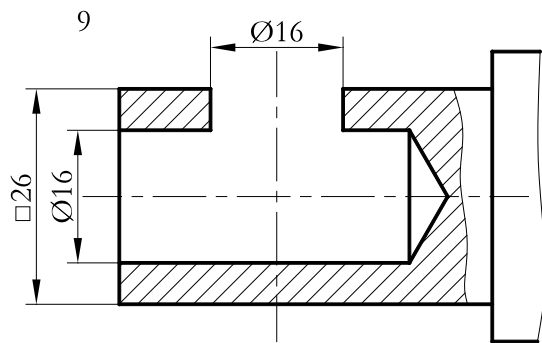


41. Munkalap

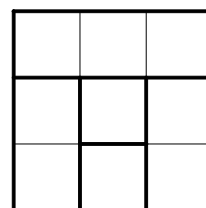
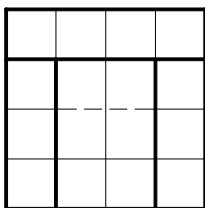
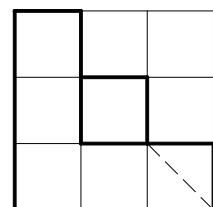
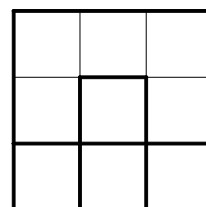
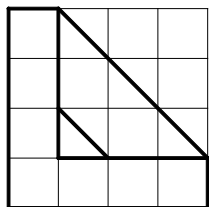
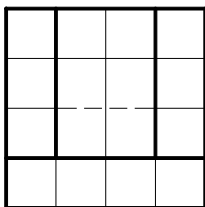
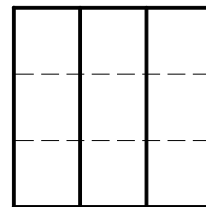
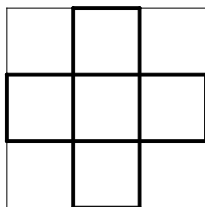
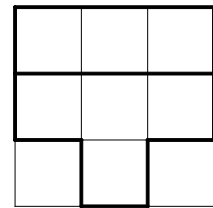
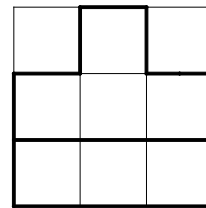
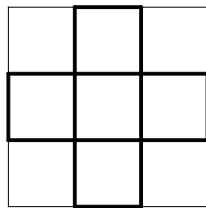
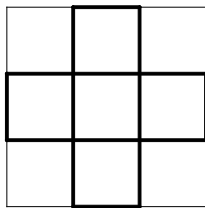
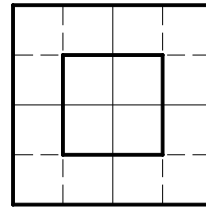
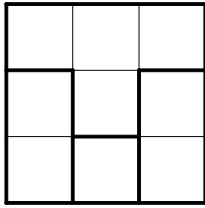
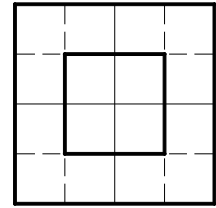
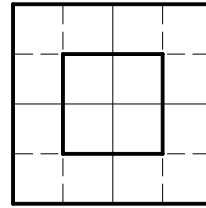
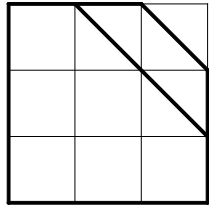
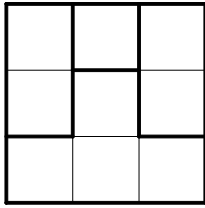
1. Rajzoljuk meg az üres tengelycsap áthatásait belátás alapján!



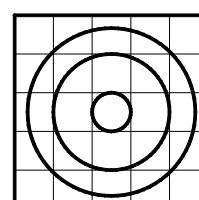
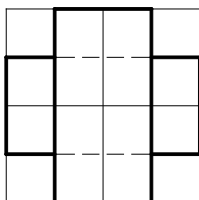
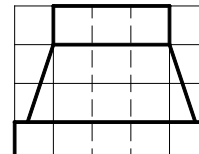
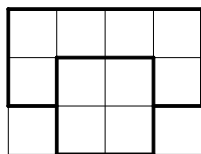
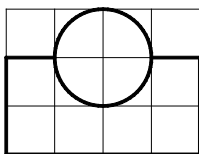
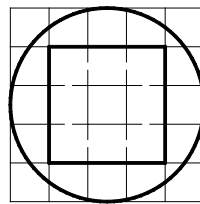
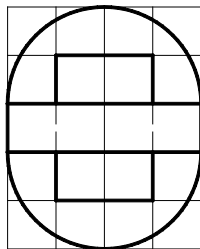
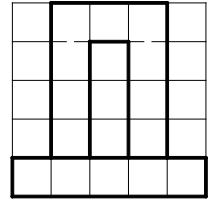
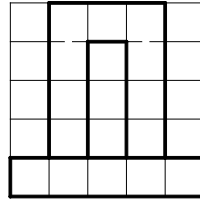
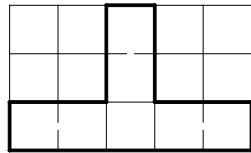
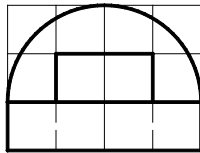
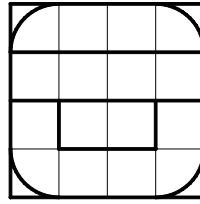
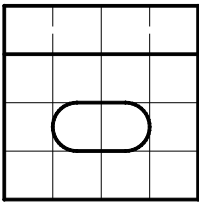
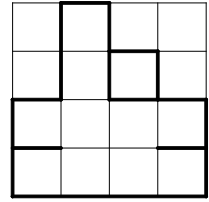
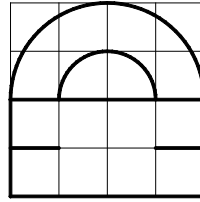
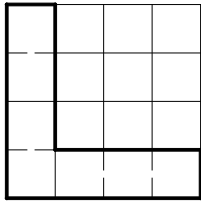
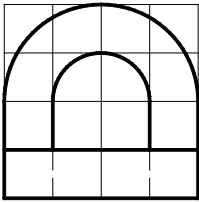
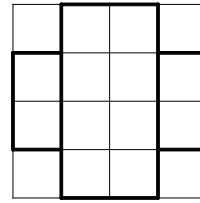
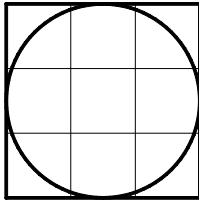
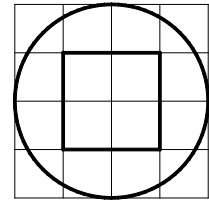
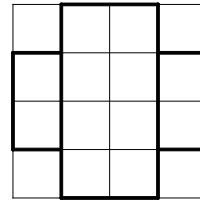
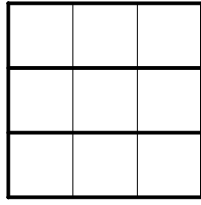
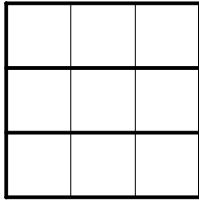
1. Rajzoljuk meg az üres tengelycsap áthatásait belátás alapján!



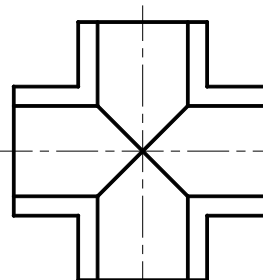
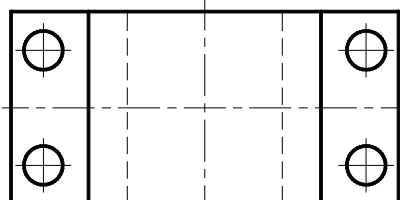
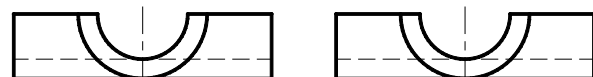
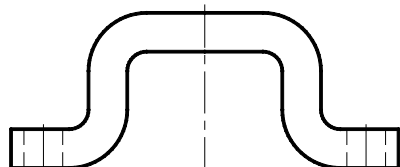
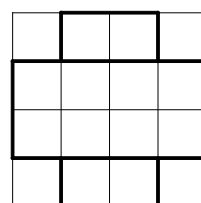
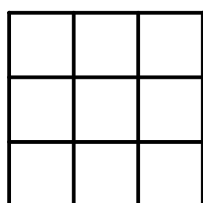
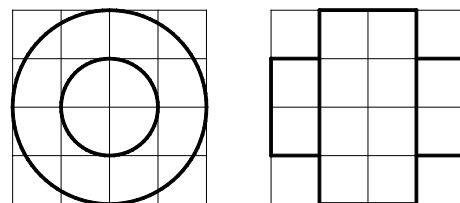
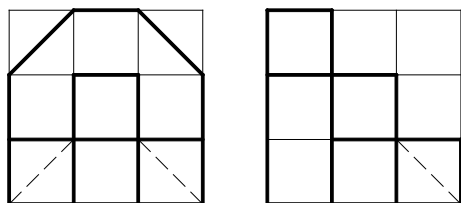
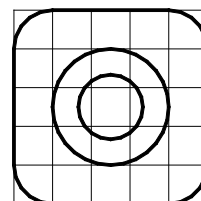
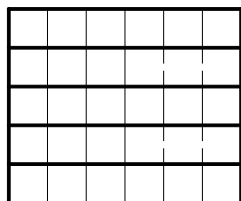
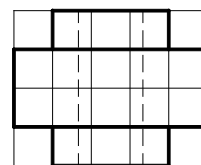
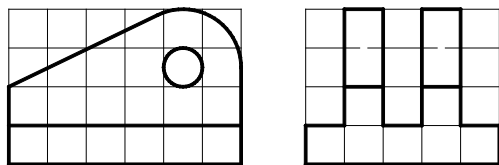
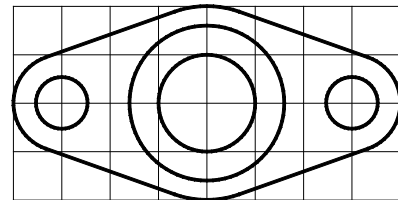
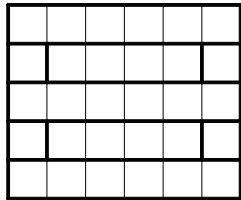
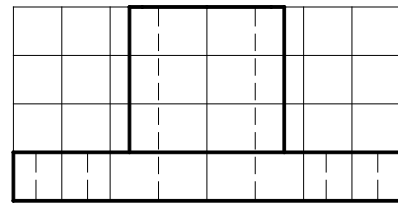
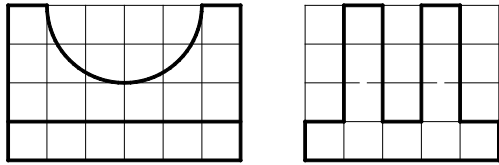
1. Rajzolja meg a vetületeivel ábrázolt testek axonometrikus ábráit!



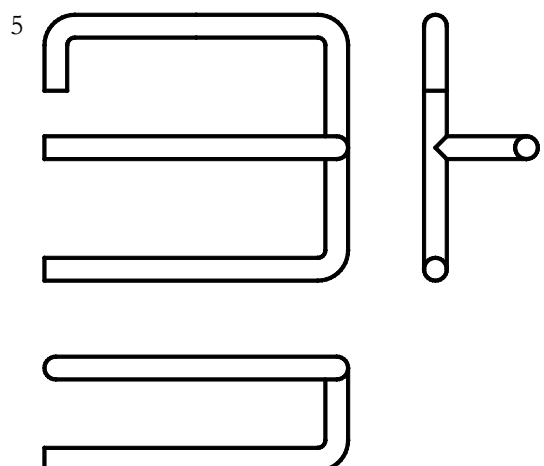
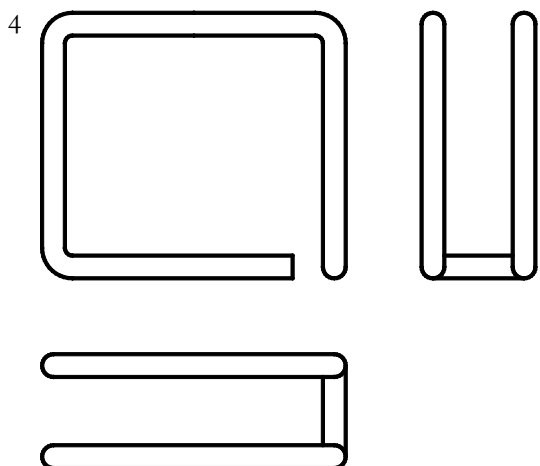
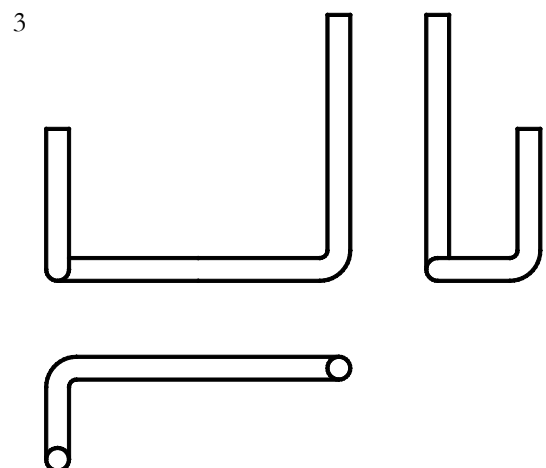
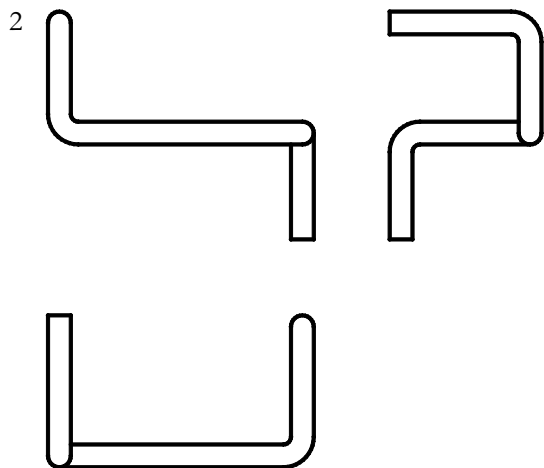
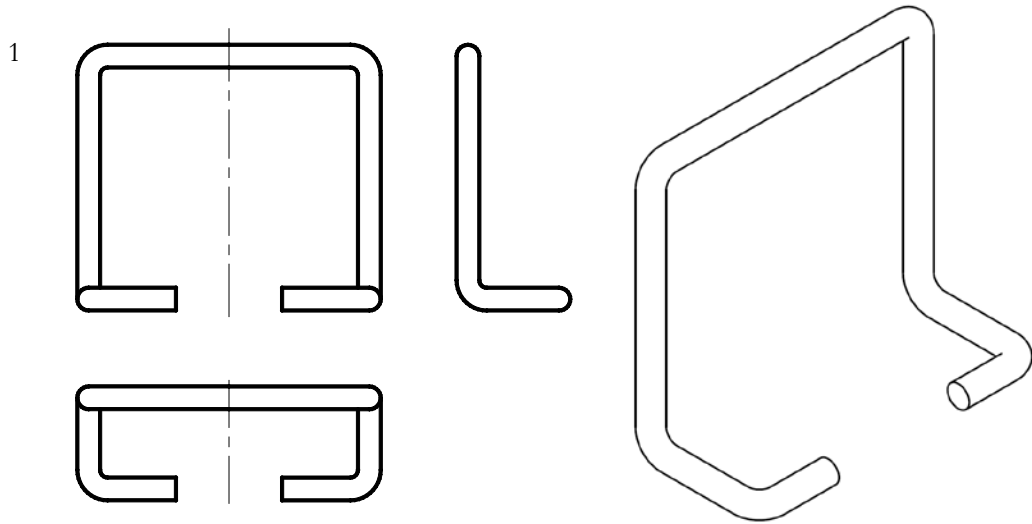
1. Rajzolja meg a vetületeivel ábrázolt testek axonometrikus ábráit!



1. Rajzolja meg a vetületeivel ábrázolt testek axonometrikus ábráit!

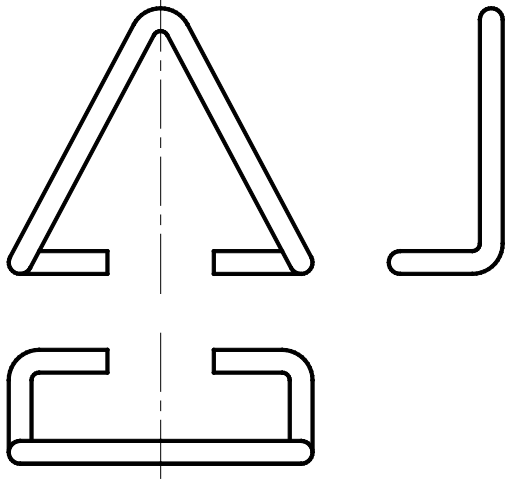


1. Állítsa elő a vetületeivel adott „drótformát a valóságban és ábrázolja axonometrikusan! (Ha azt tapasztalja, hogy el tudja képzelni a valóságot, akkor fordítsa meg a sorrendet és előbb a drótforma axonometrikus ábráját készítse el!)

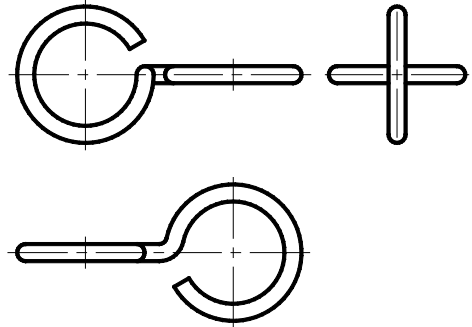


1. Állítsa elő a vetületeivel adott „drótformát a valóságban és ábrázolja axonometrikusan. Ha azt tapasztalja, hogy el tudja képzelni a valóságot, akkor fordítsa meg a sorrendet és előbb a drótforma axonometrikus ábráját készítse el!

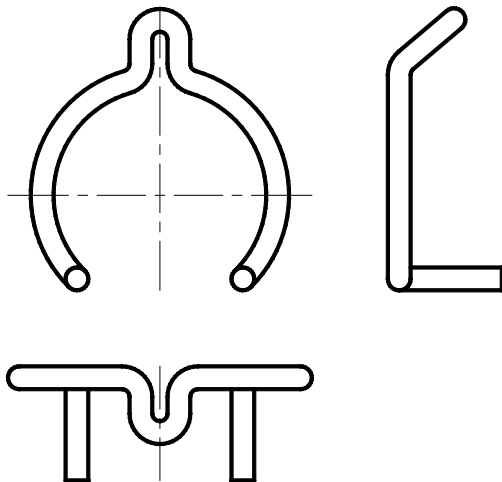
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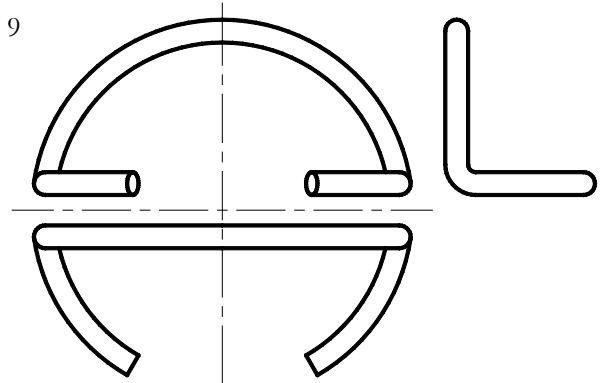
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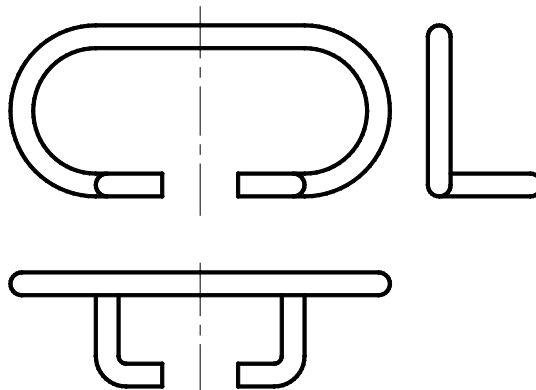
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9

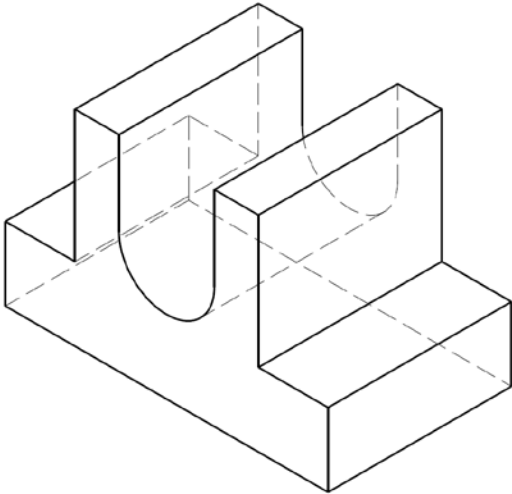


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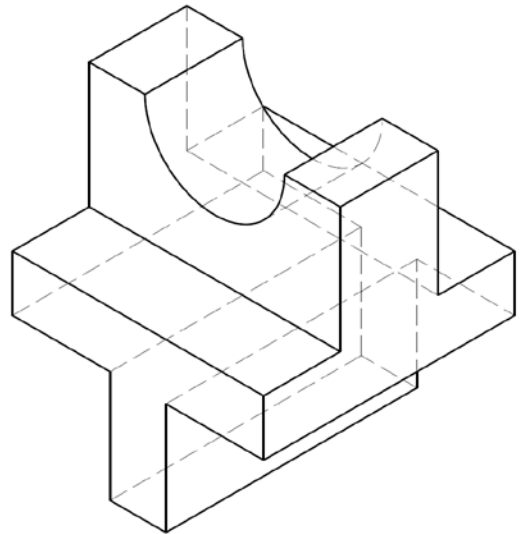


1. Ábrázolja az alábbi testeket a szükséges számú vetülettel! Az előlnézet (főábra) nézési irányát úgy válassza meg, hogy a darabról a legtöbb információt adja.

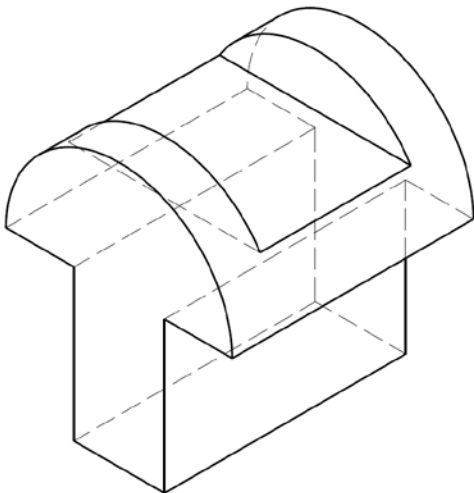
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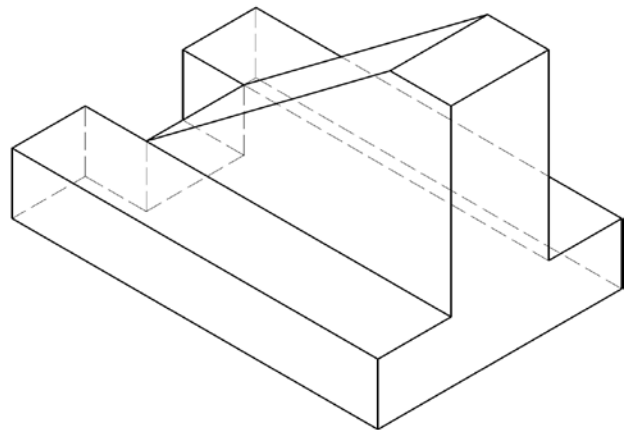
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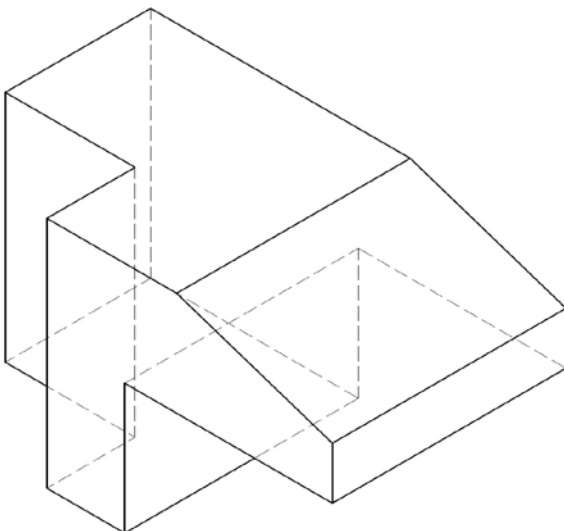
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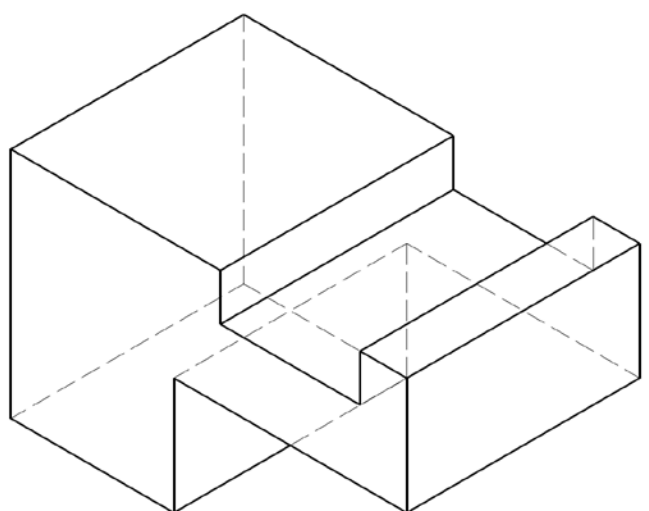
4



5



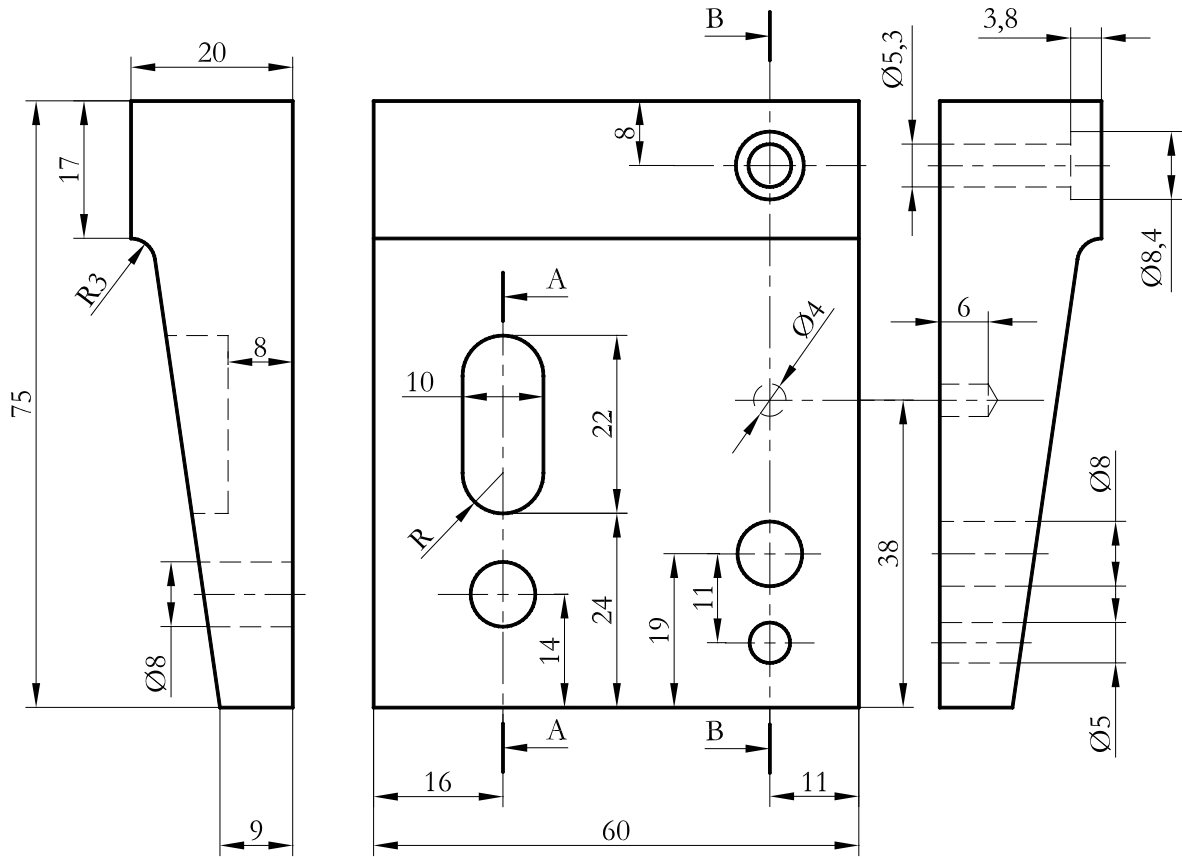
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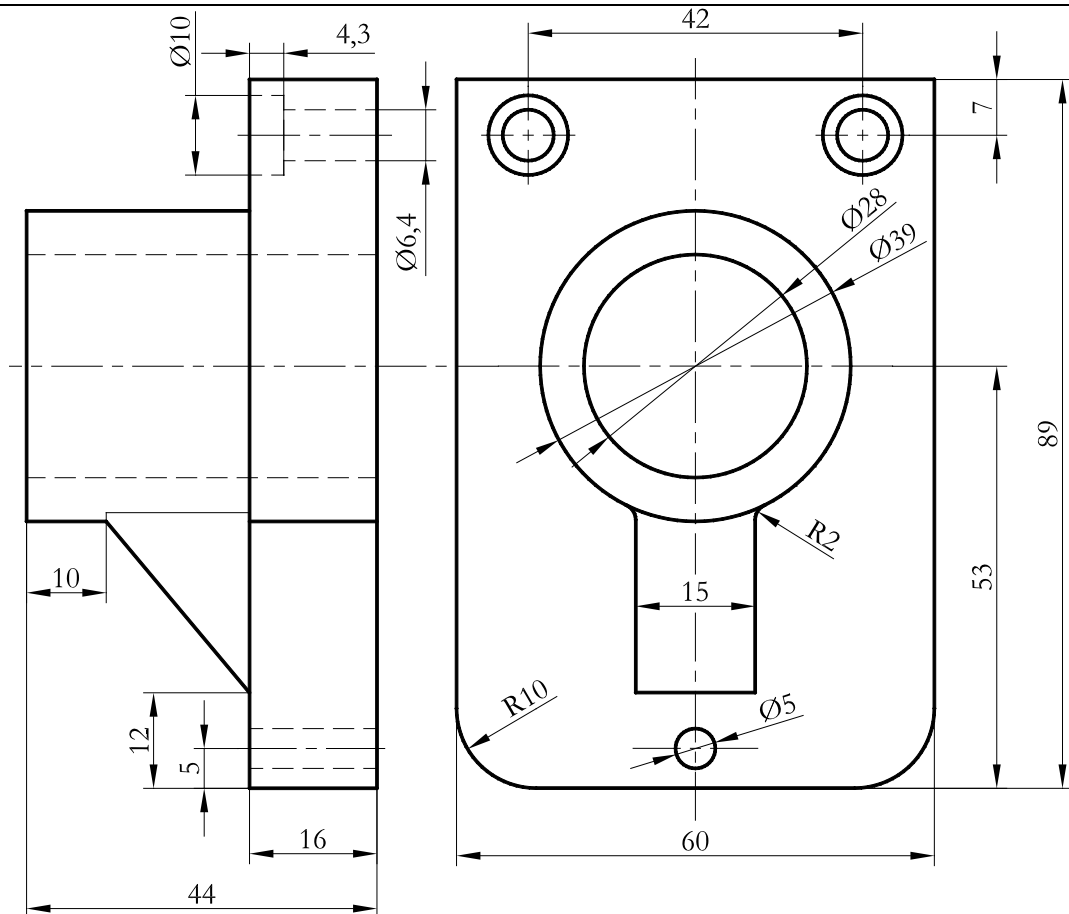


1. Alakítsa metszetté az alábbi tárgyak megfelelő vetületit!

1

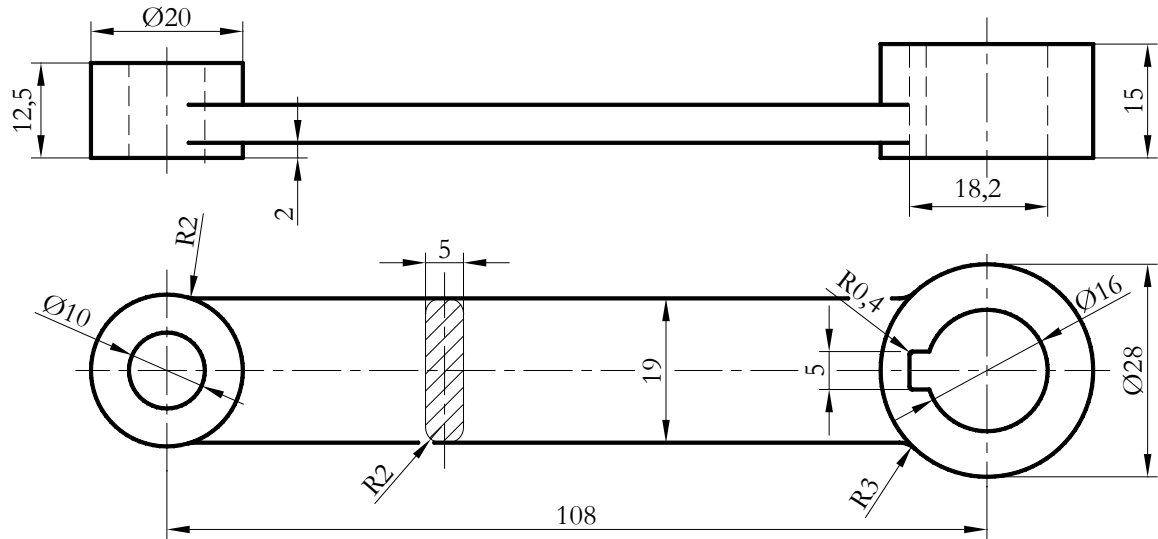


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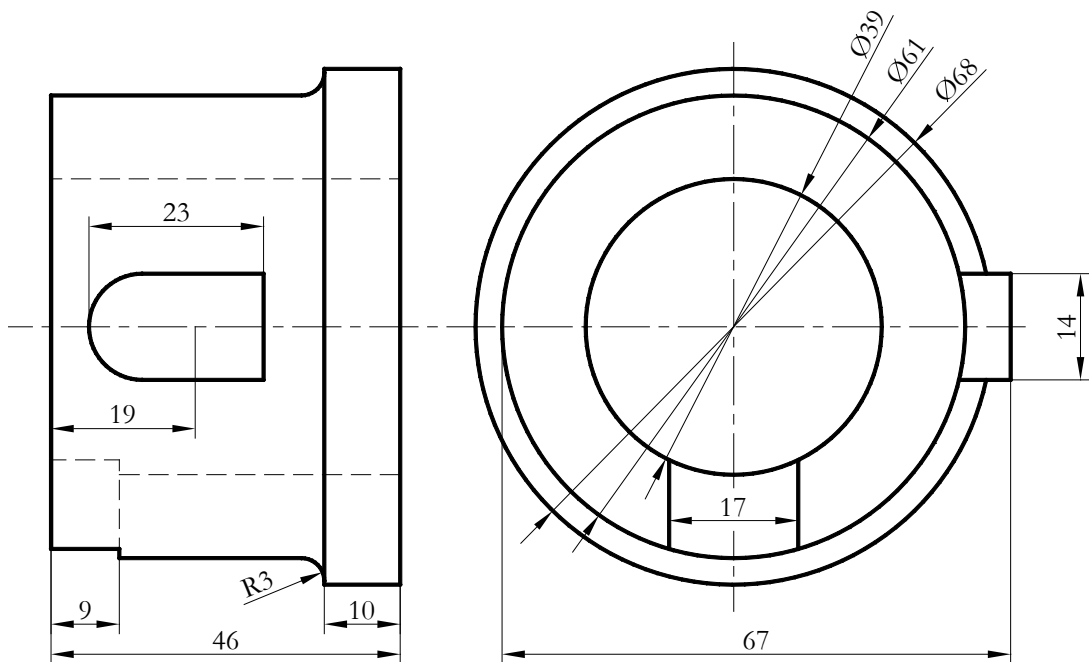


1. Alakítsa metszetté az alábbi tárgyak megfelelő vetületit!

1

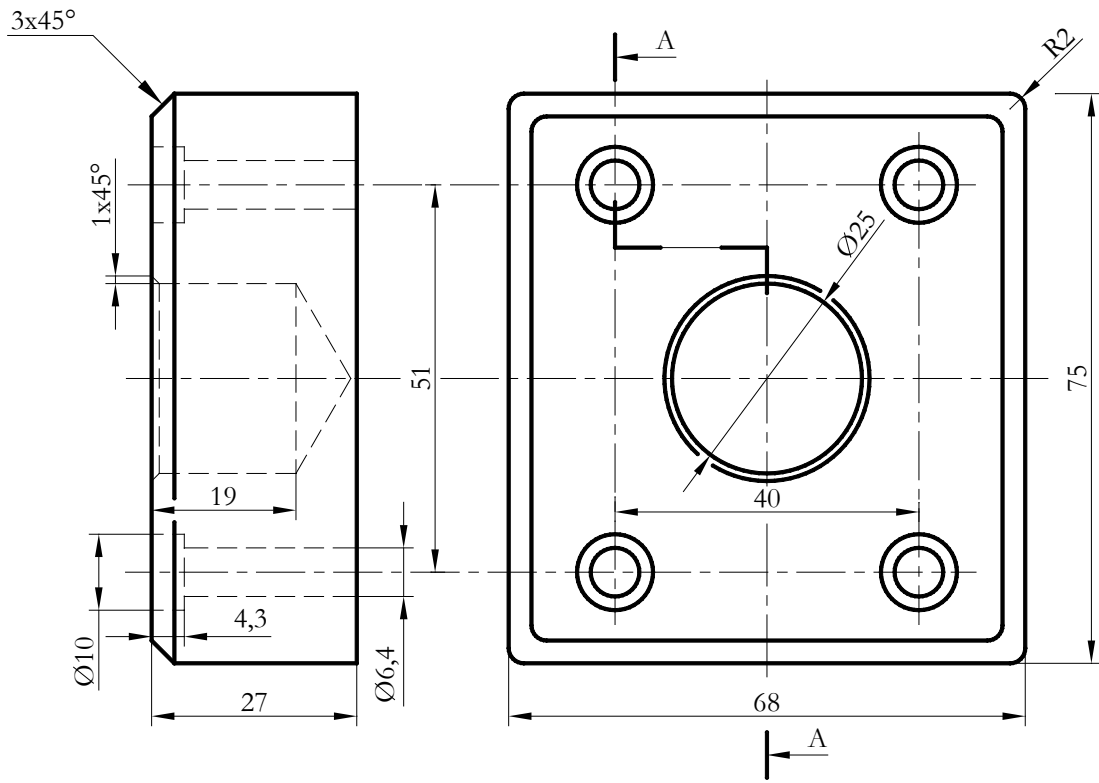


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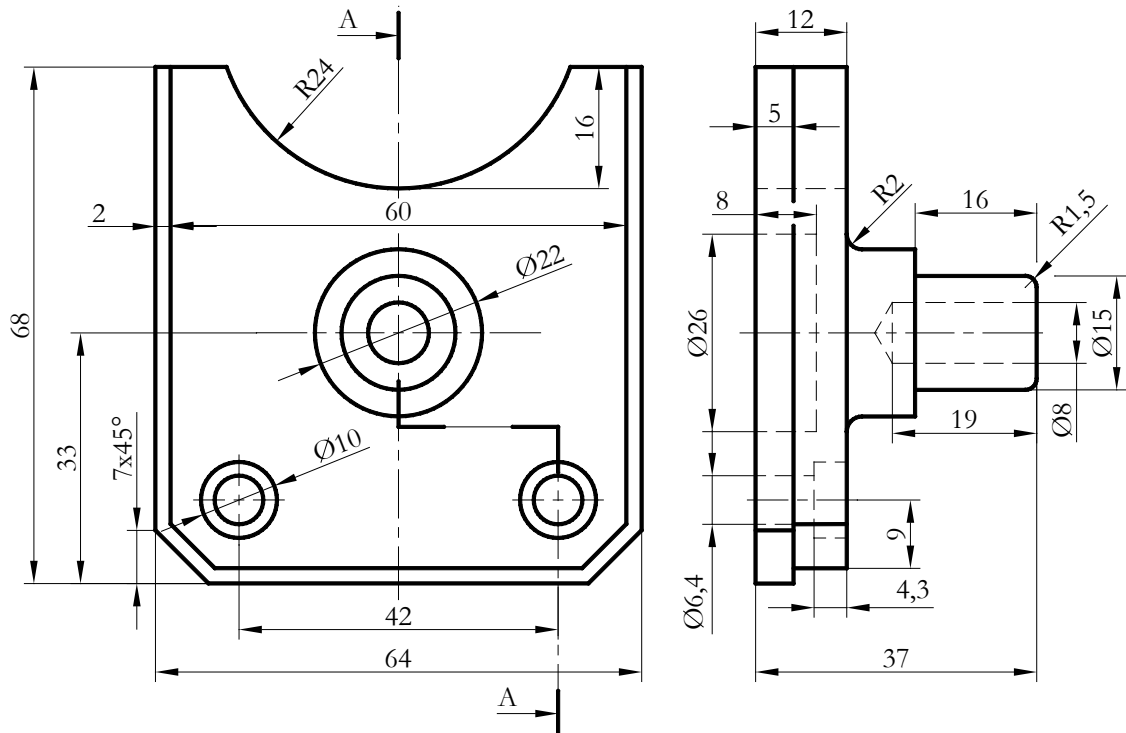


1. Alakítsa metszetté az alábbi tárgyak megfelelő vetületit!

1

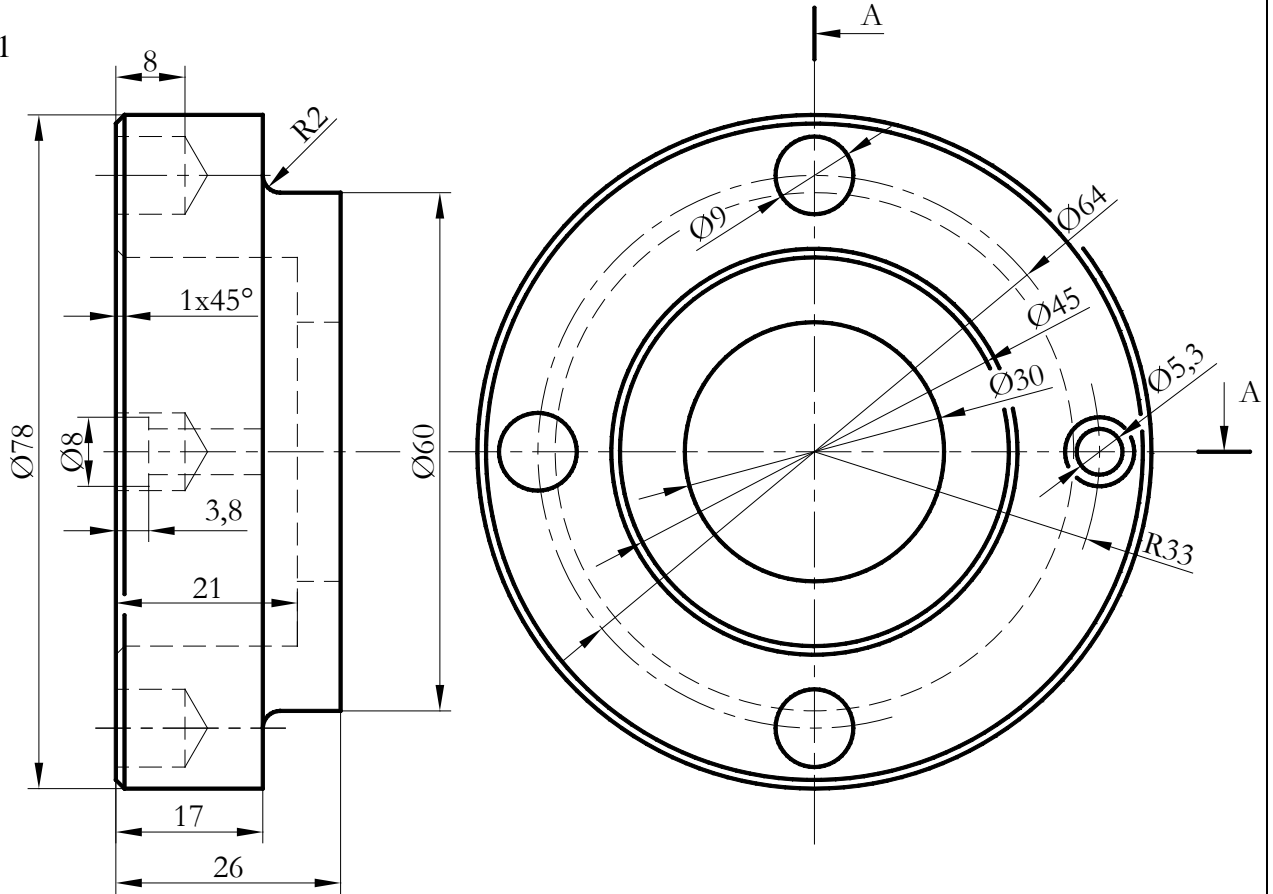


2



1. Alakítsa metszetté az alábbi tárgyak megfelelő vetületit!

1



2

