

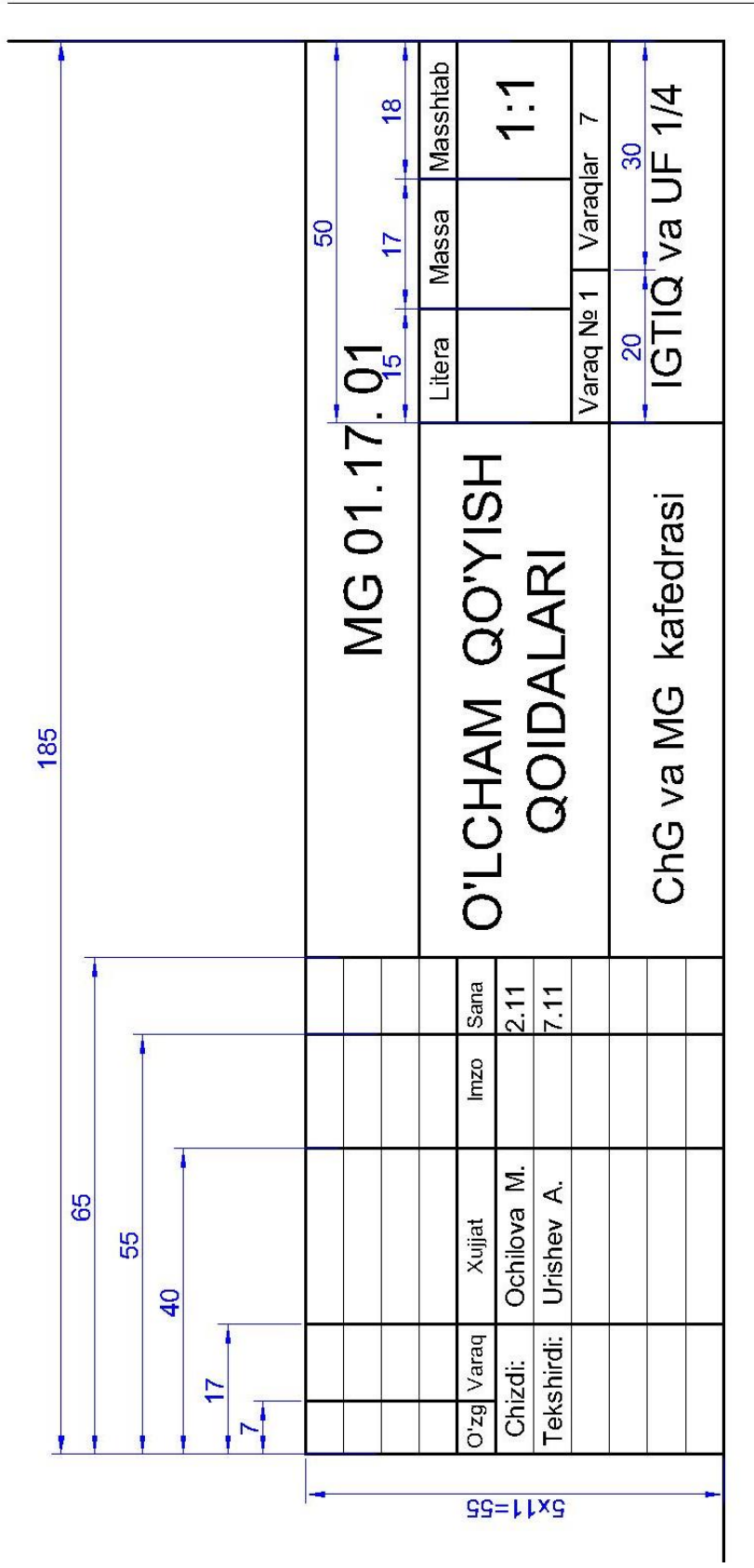
Adhamjon Ergashaliyevich Urishev

Jahongir Avloqulovich Qosimov

„Cizma geometriya va muhandislik grafikasi“ kafedrası

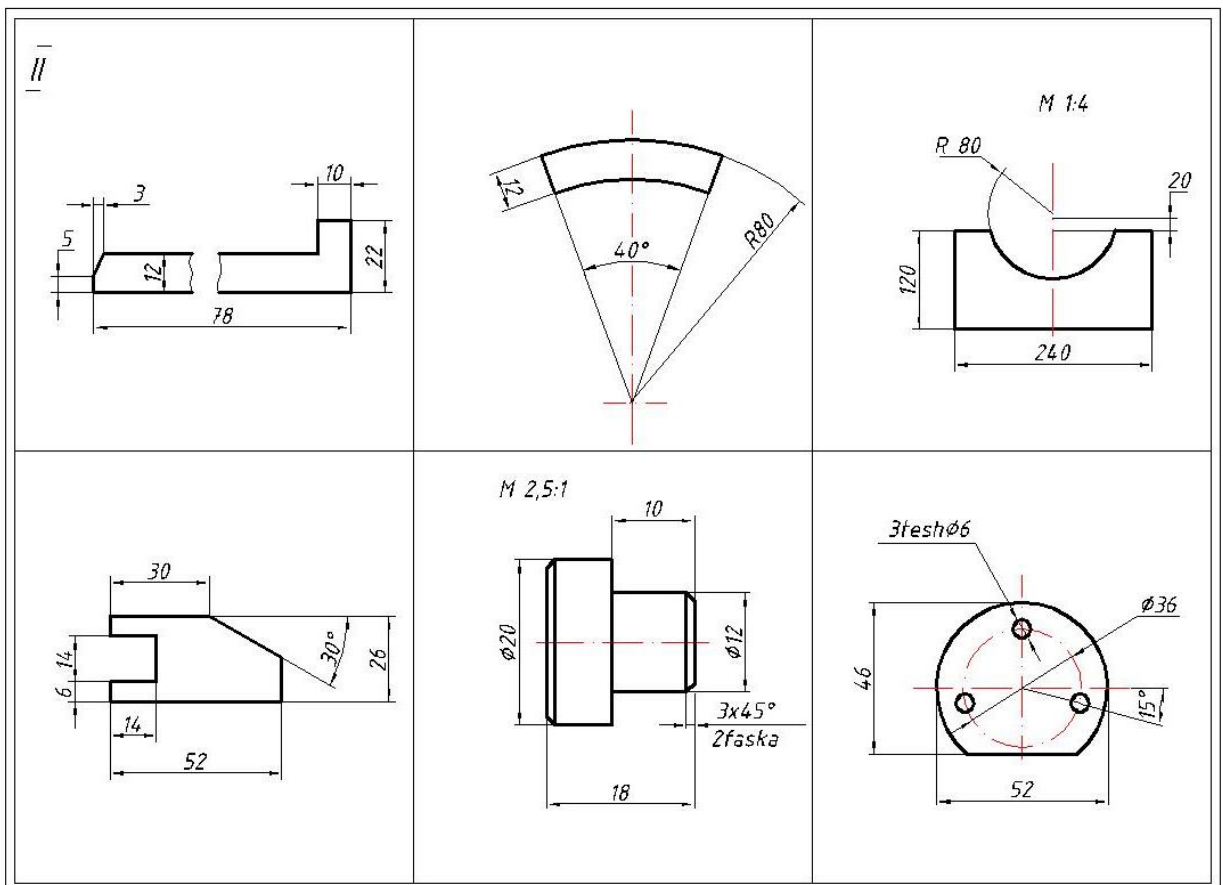
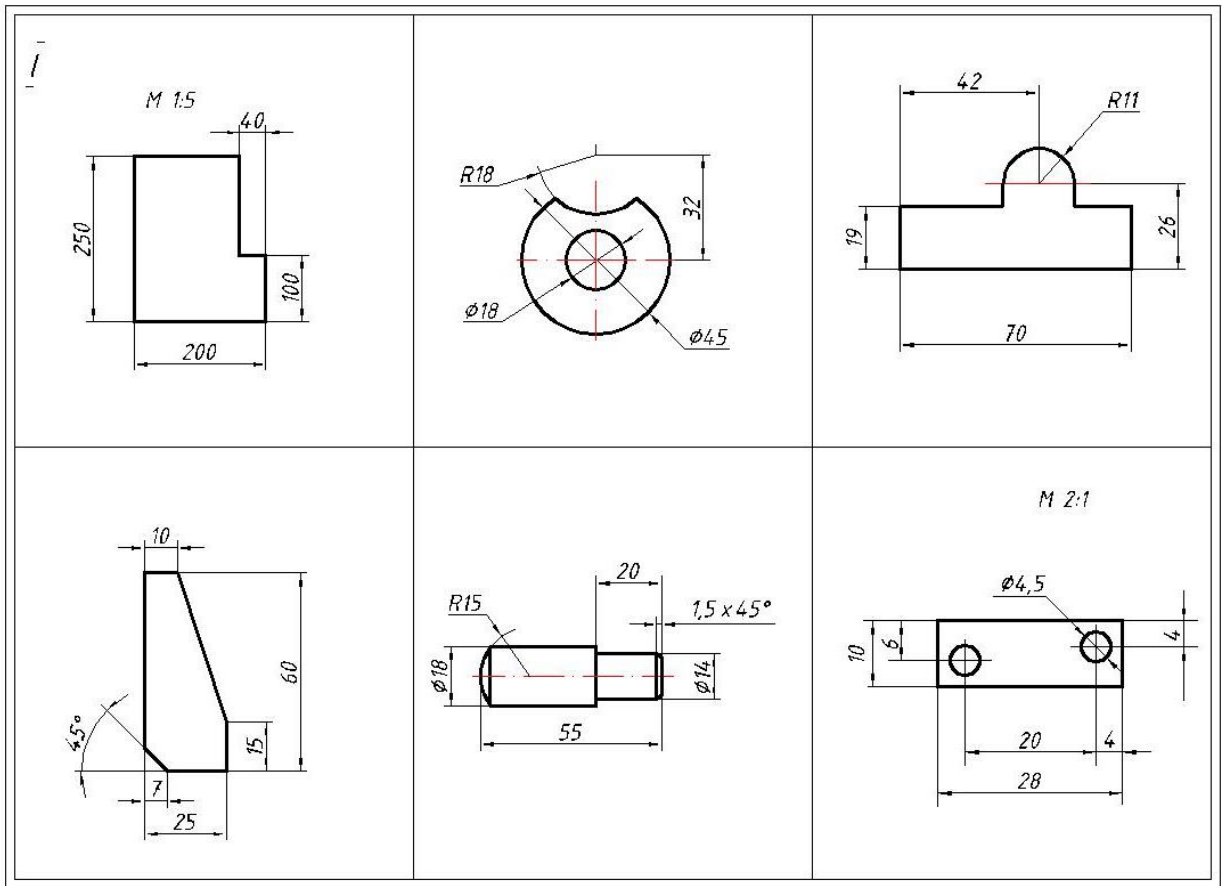
**„Cizma geometriya va  
muhandislik grafikasi“  
fanidan mashqlar to‘plami**

Toshkent 2022

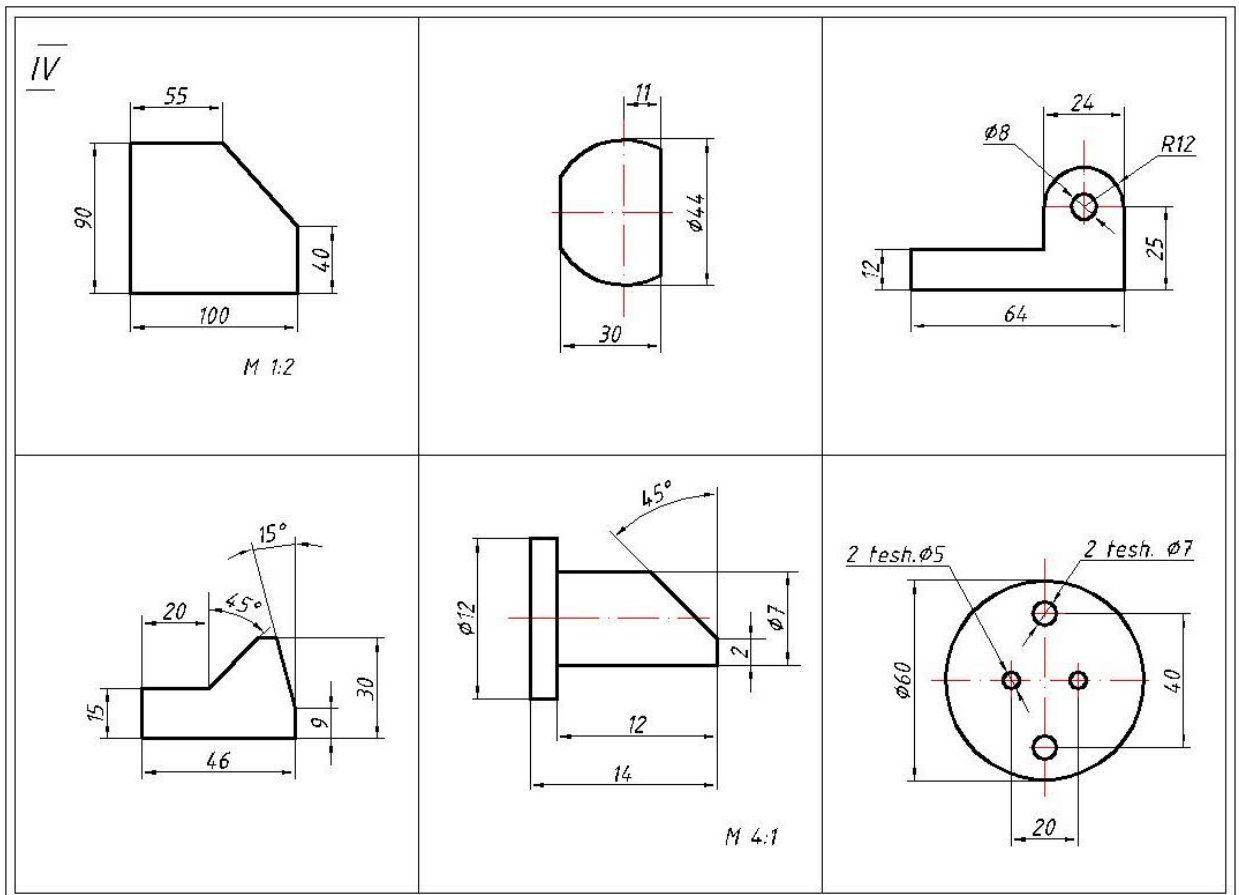
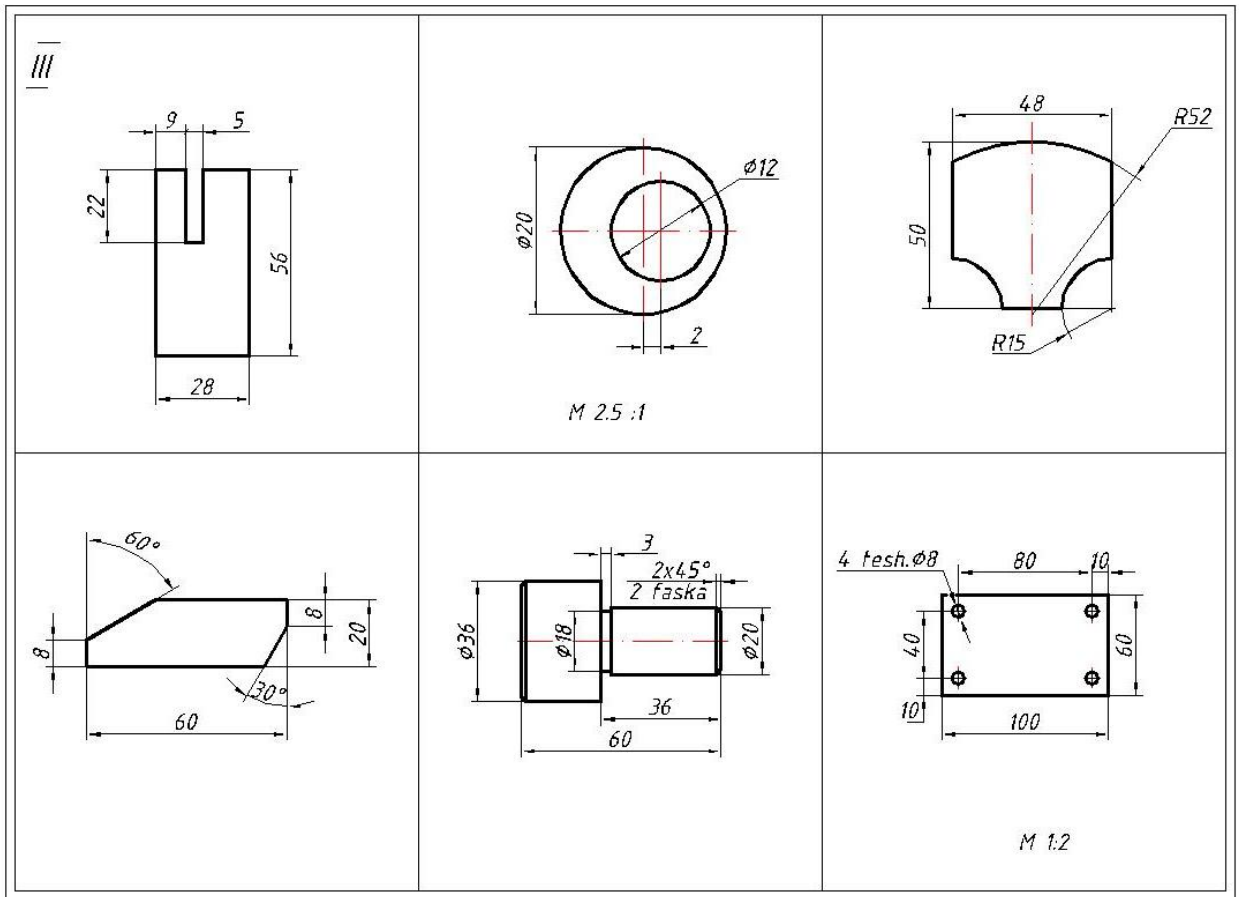


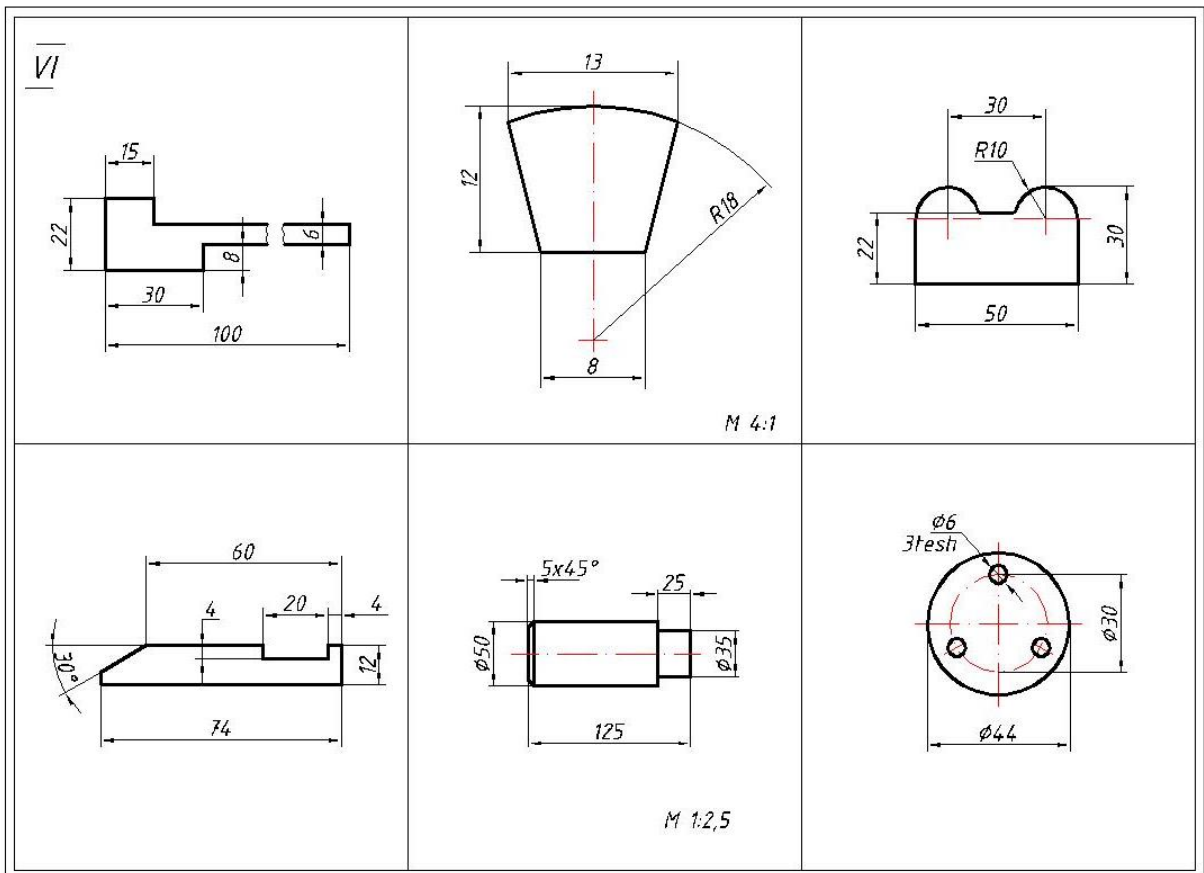
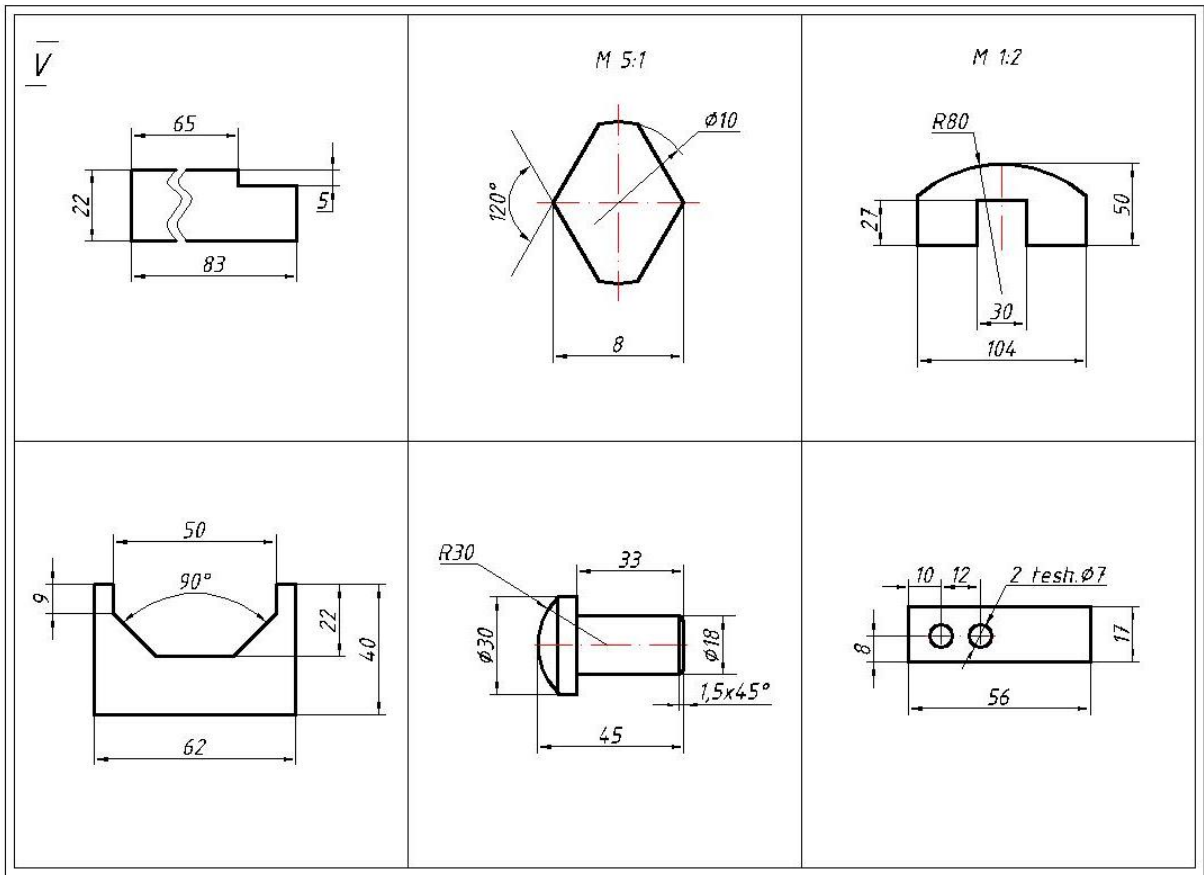
Asosiy yozuv chizma qog'ozining pastki o'ng burchagida, hoshiya chizig'iga qadalgan holda chiziladi. Chizmada asosiy yozuvning o'lchamlari va to'ldirish namunasi keltirilgan.

**1-MASHQ**  
**O‘LCHASM QO‘YISH**  
**QOIDALARI**  
**MAVZUSIGA DOIR**  
**VARIANTLAR**

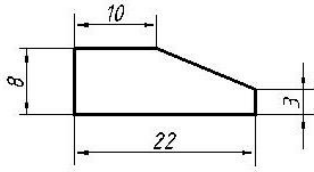




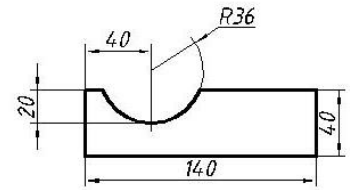
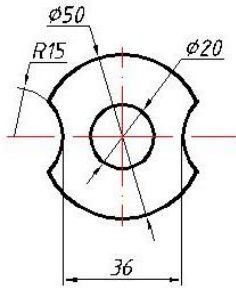




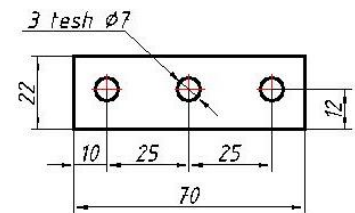
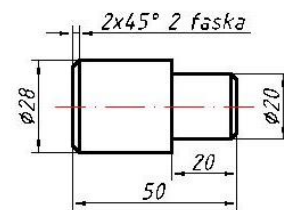
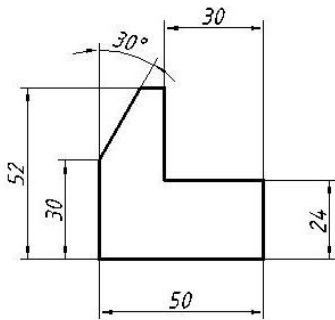
VII



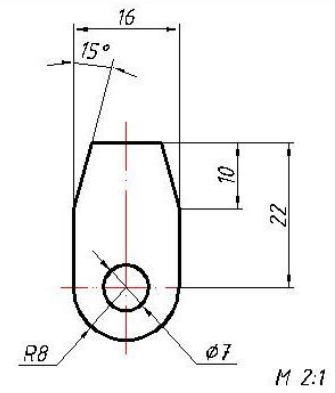
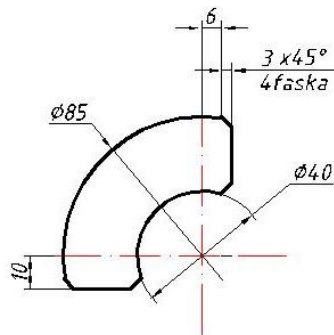
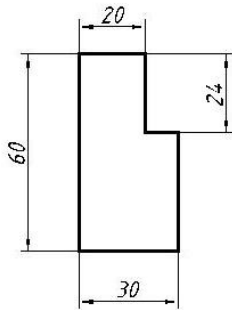
M 2,5:1



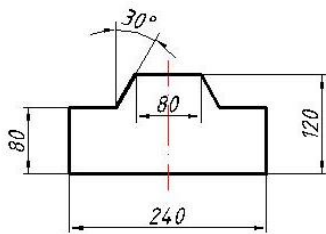
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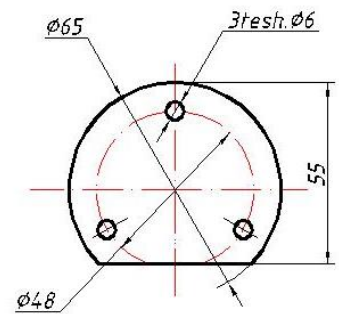
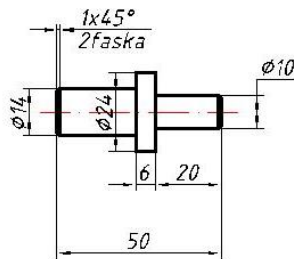
VIII

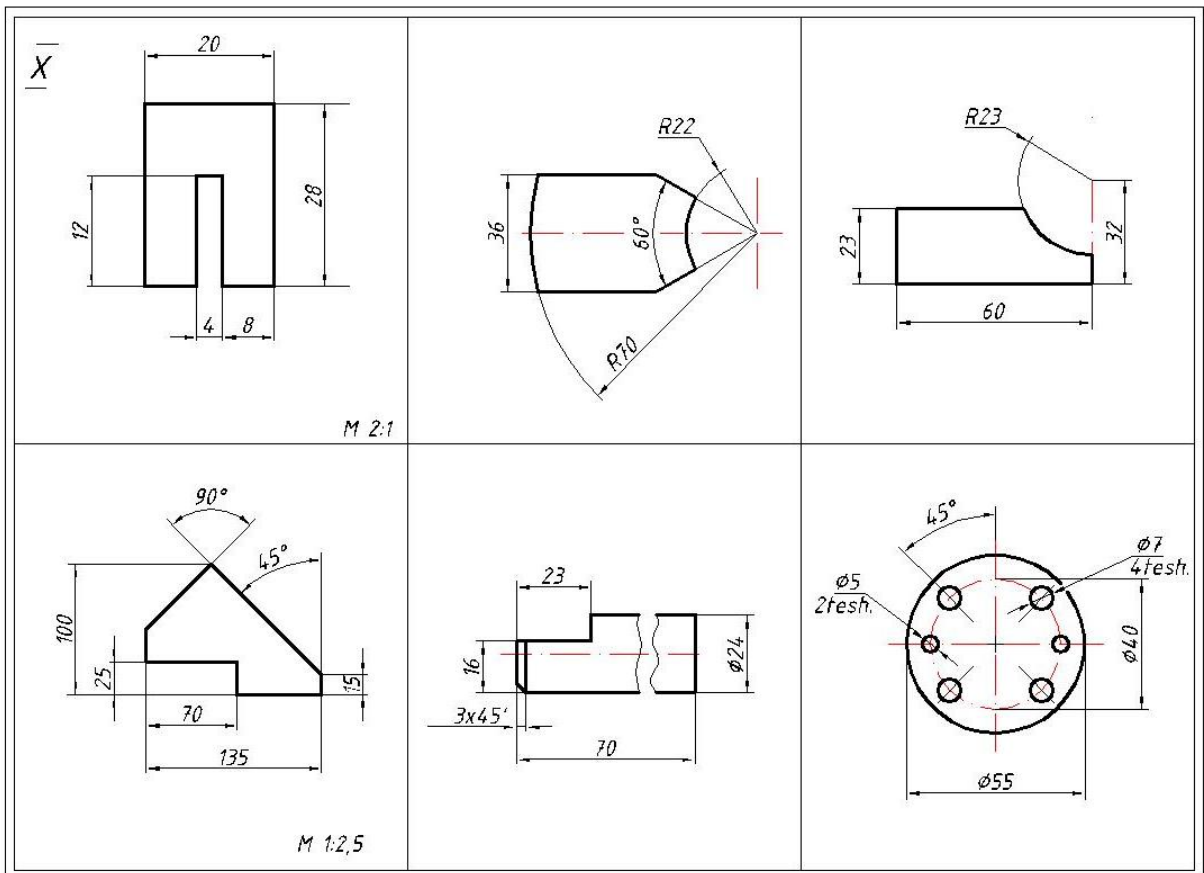
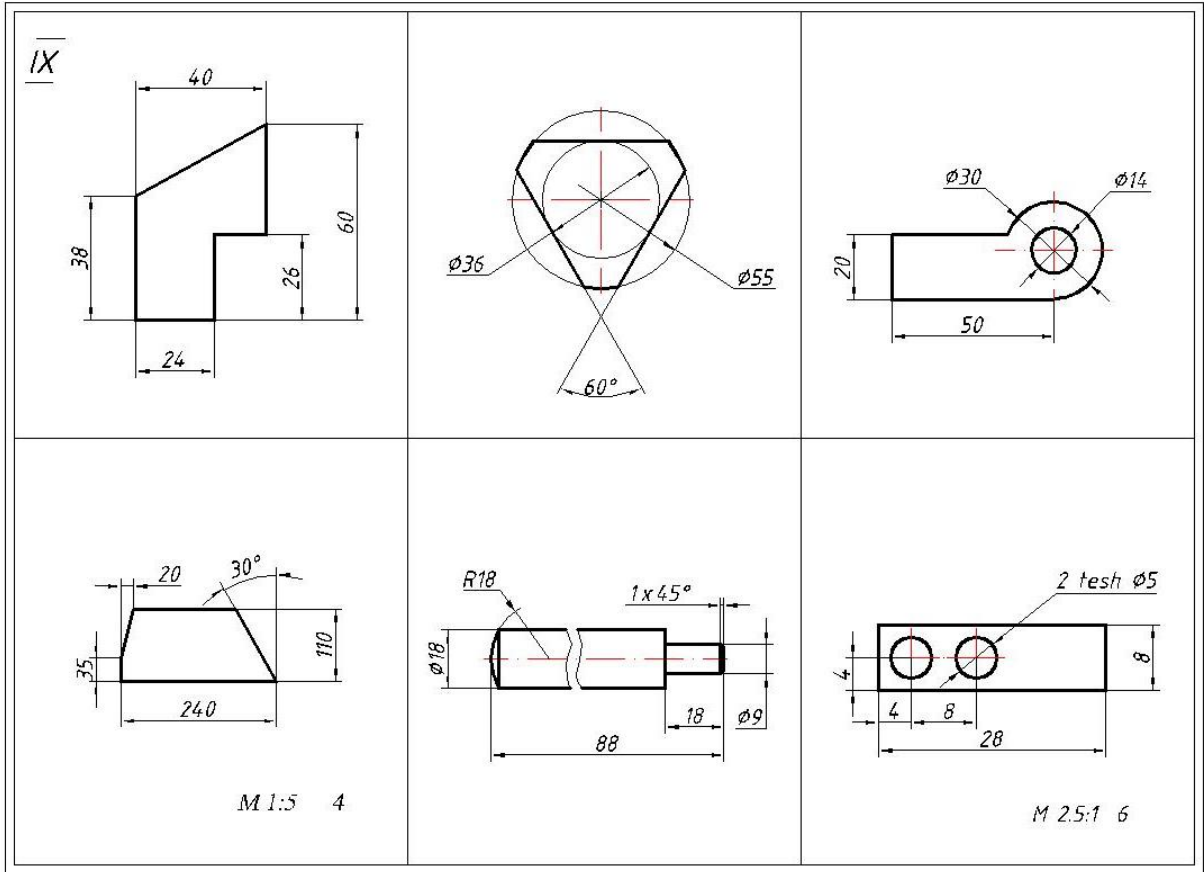


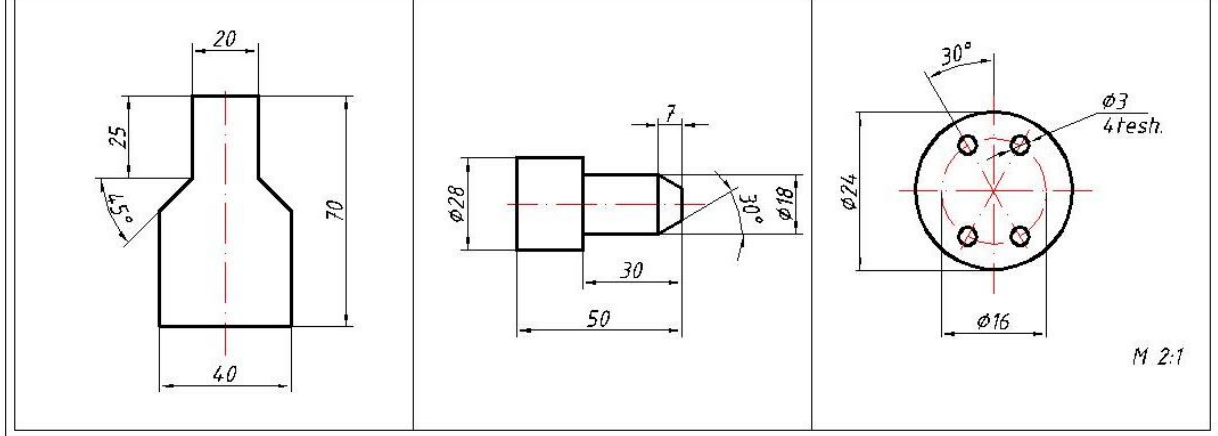
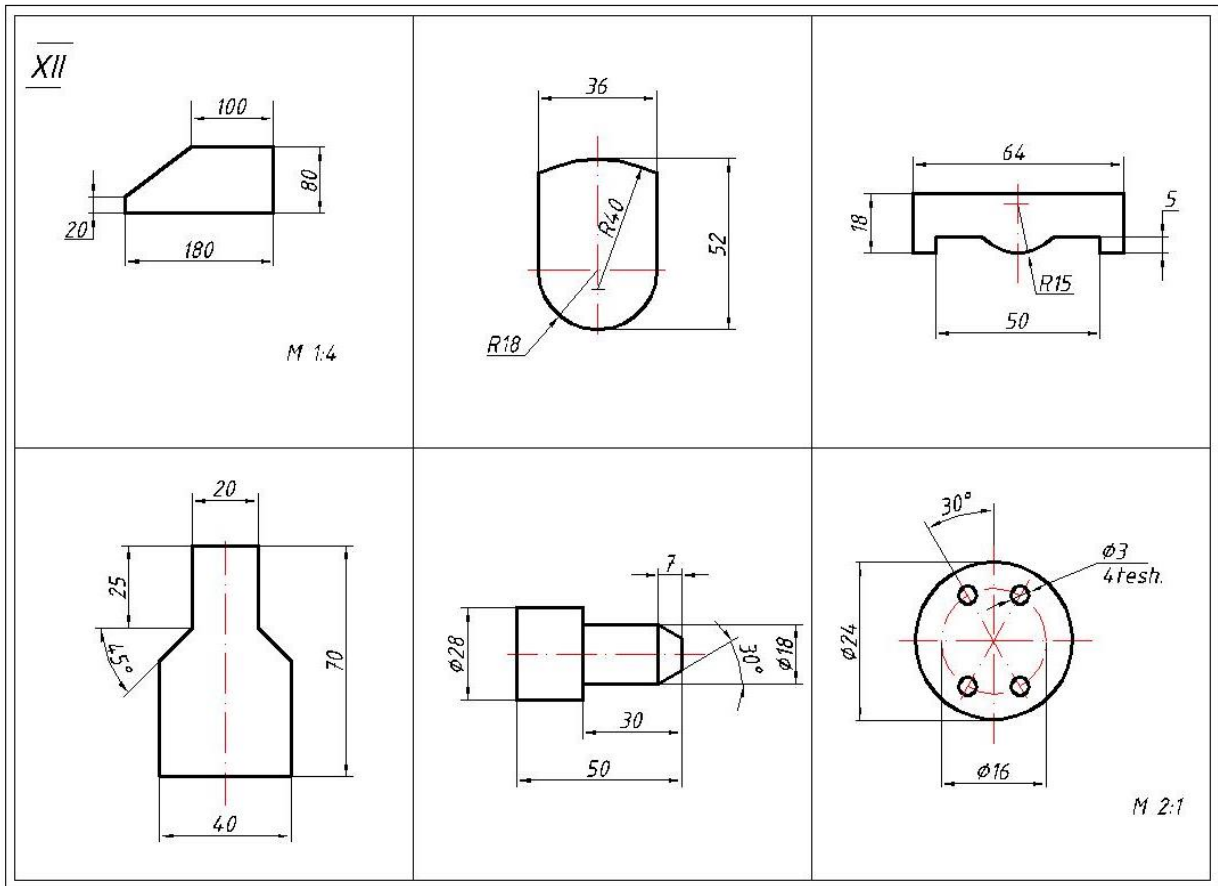
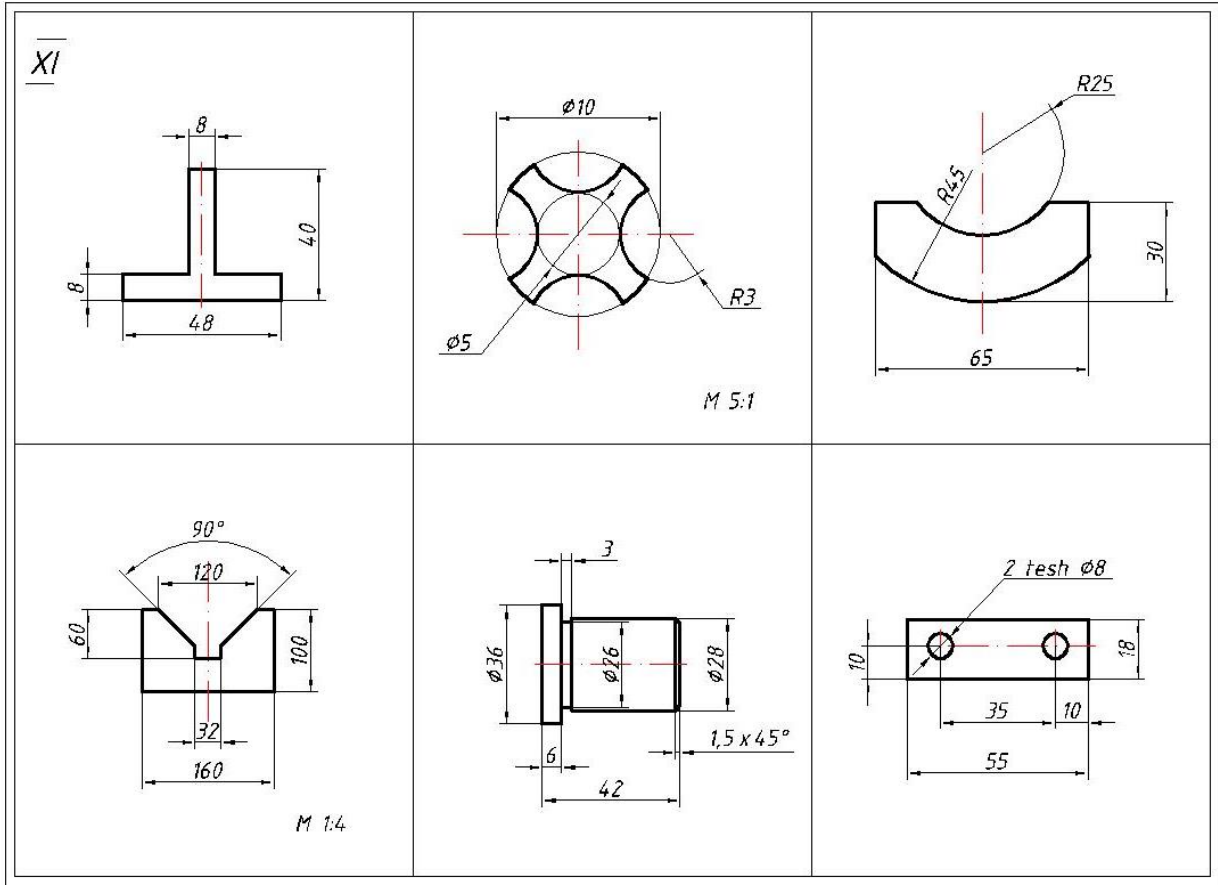
M 2:1



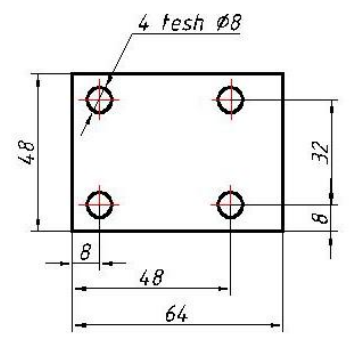
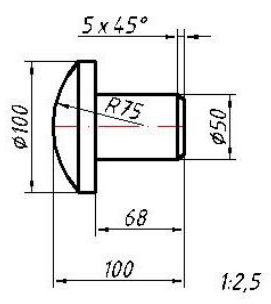
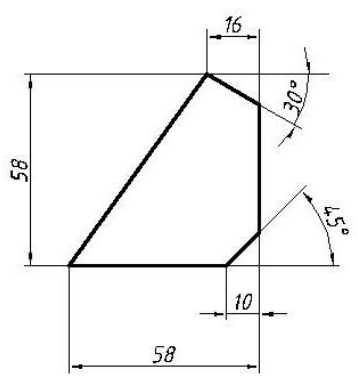
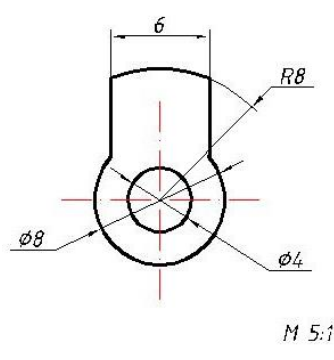
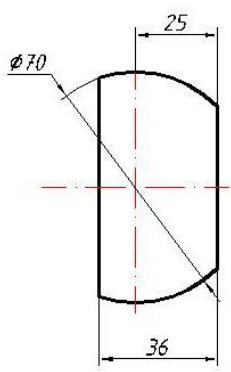
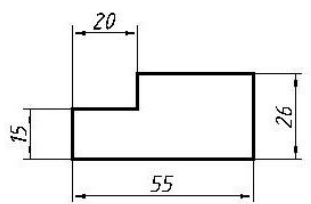
M 1:4



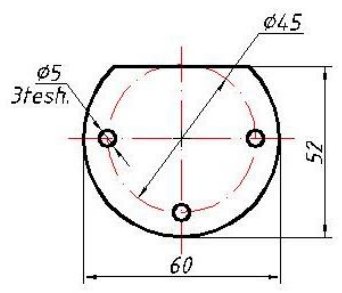
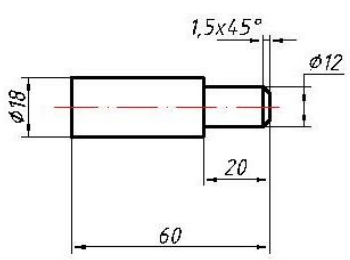
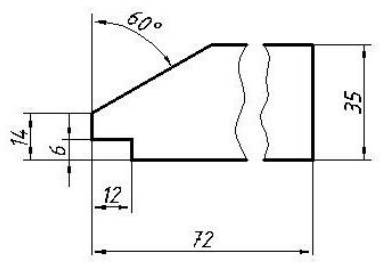
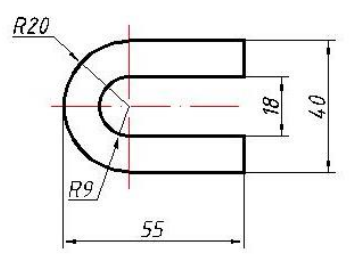
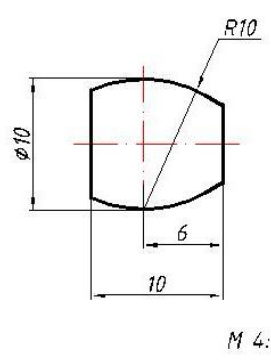
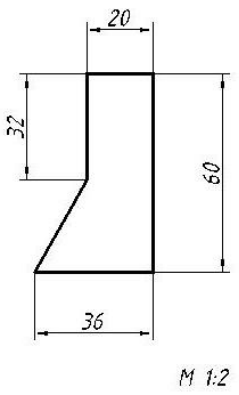


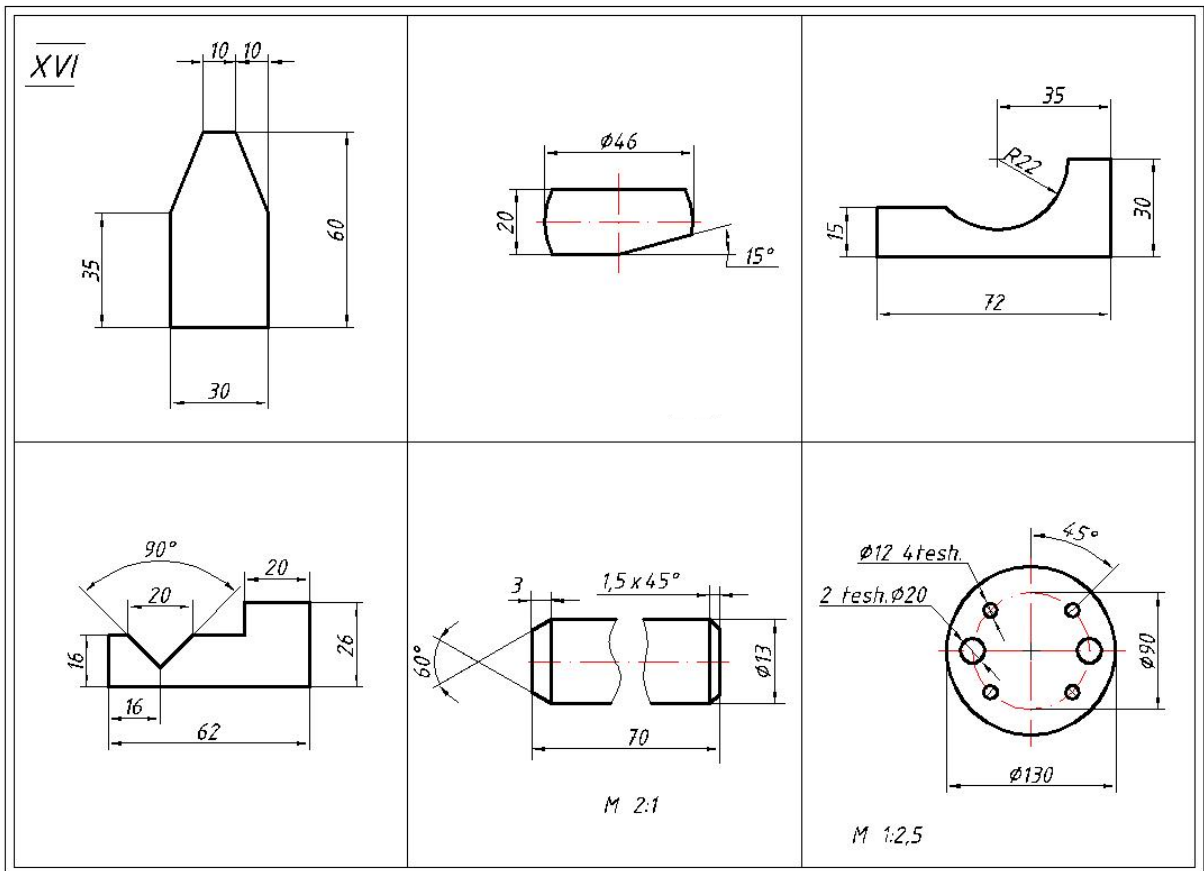
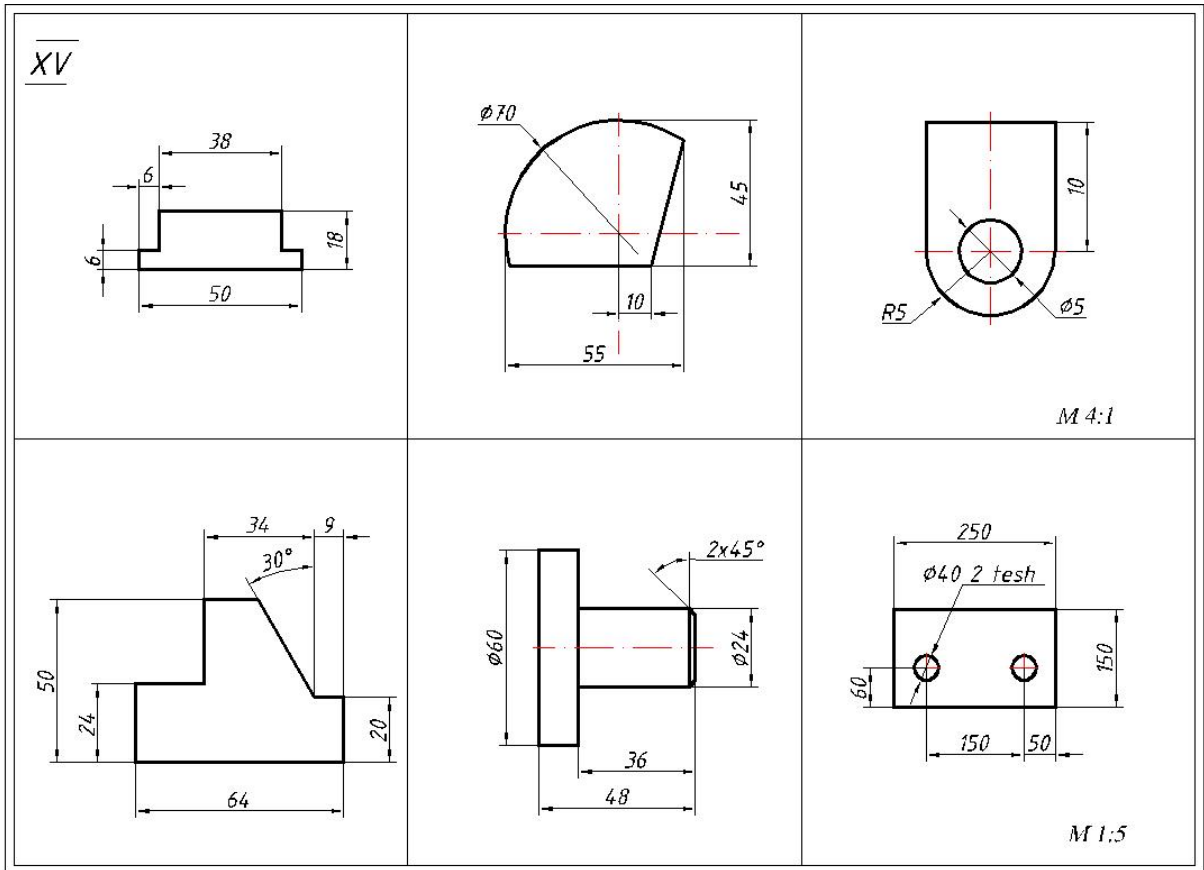


XIII

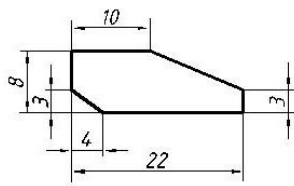


XIV

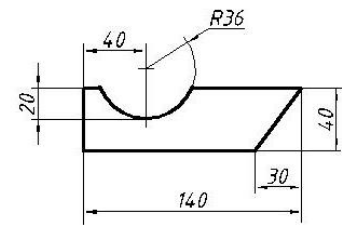
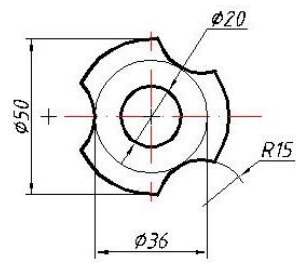




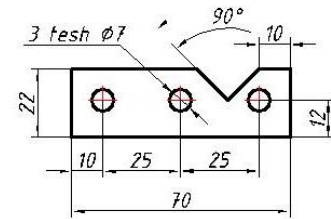
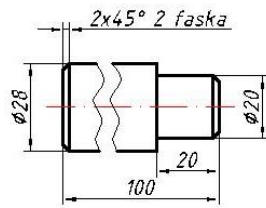
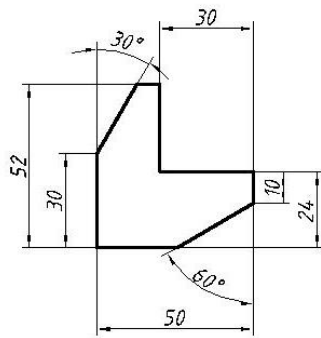
XVII



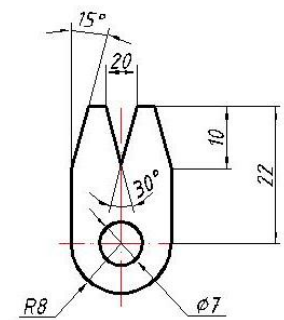
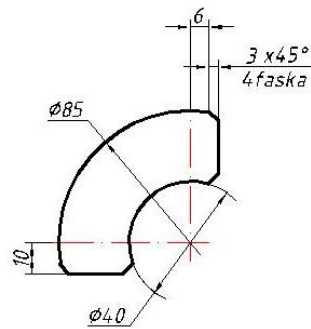
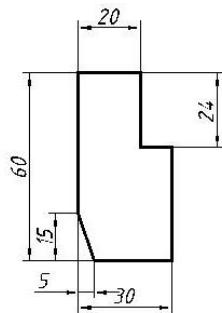
M 2.5:1



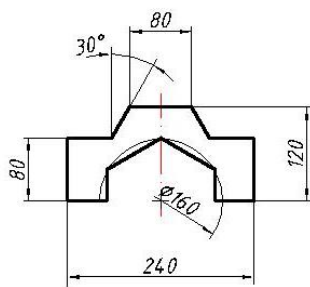
M 1:2



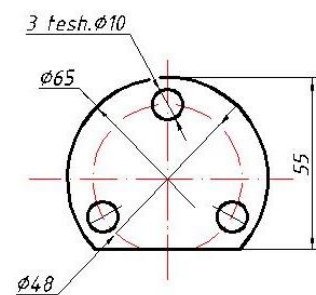
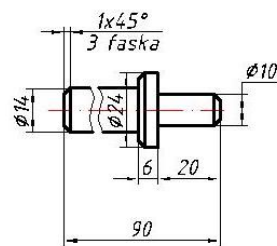
XVIII



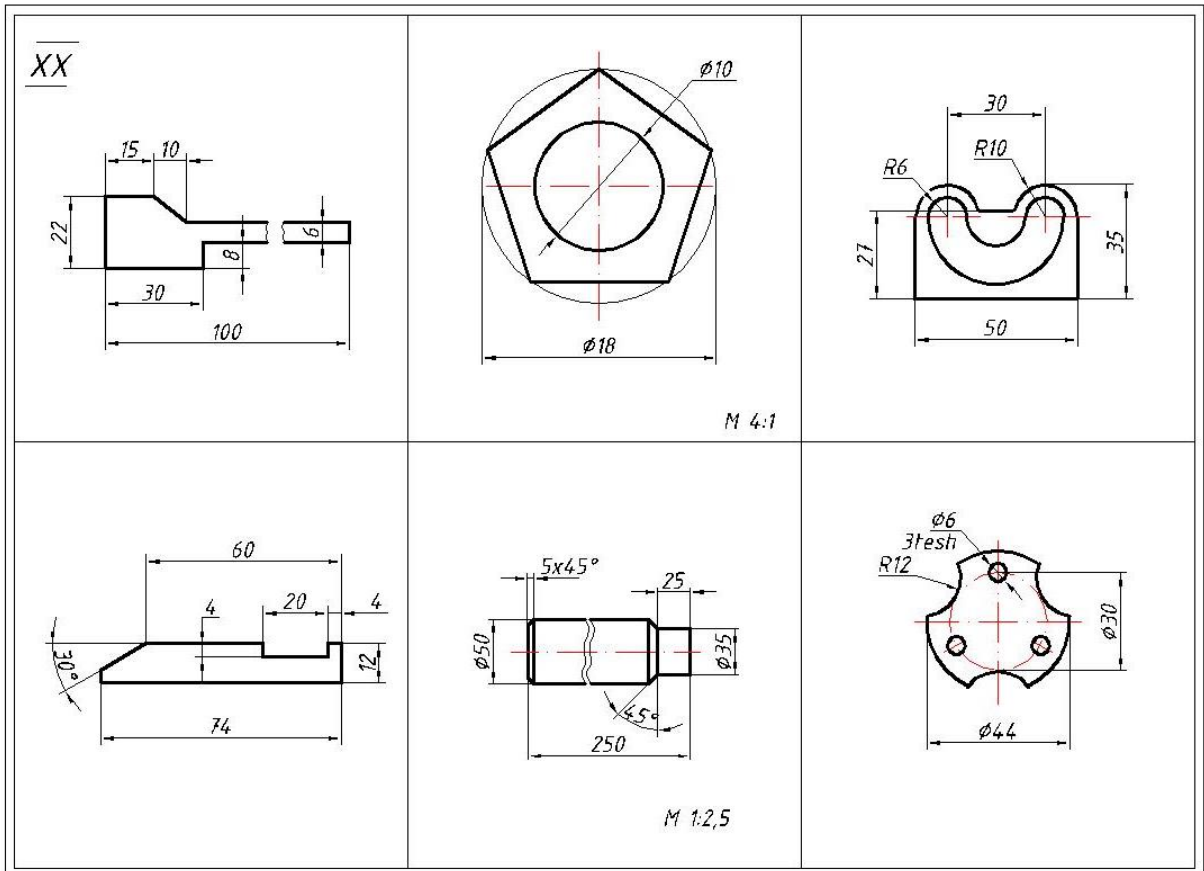
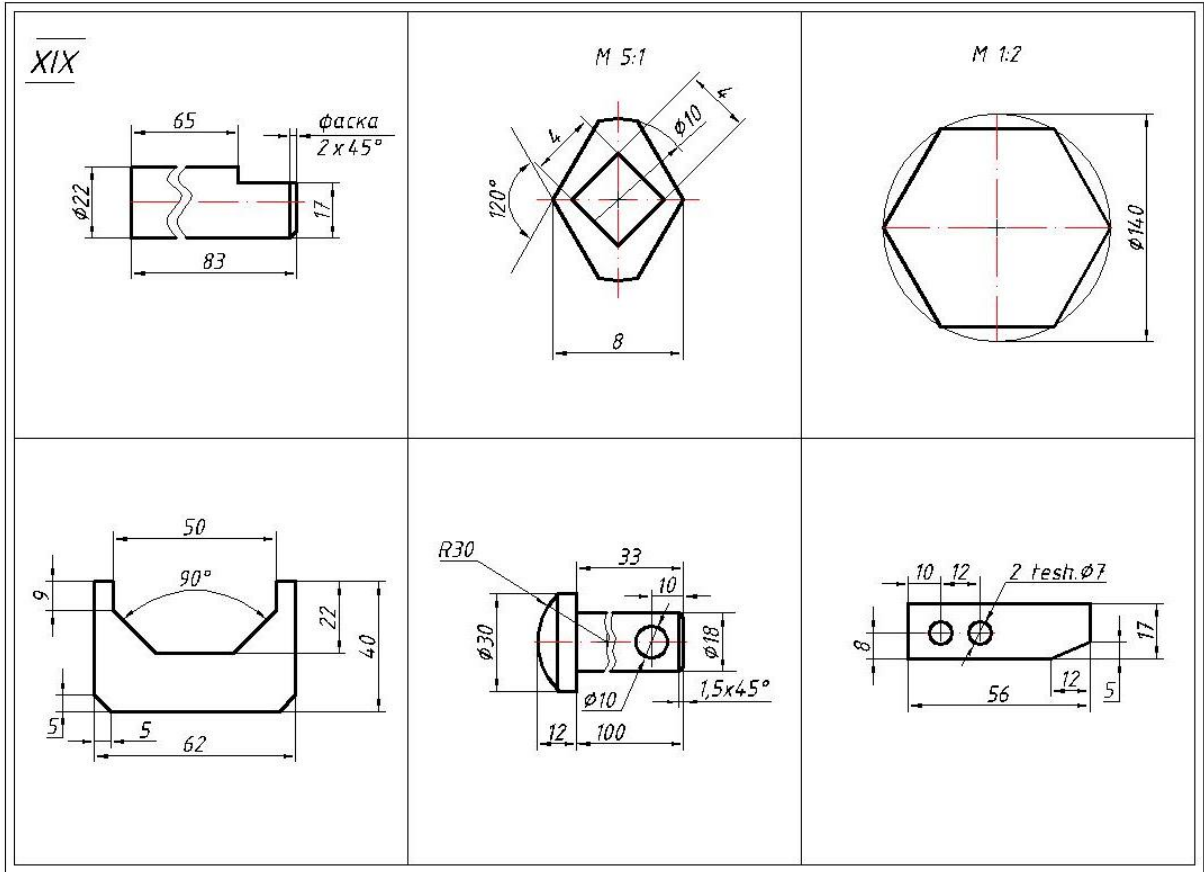
M 2:1



M 1:4



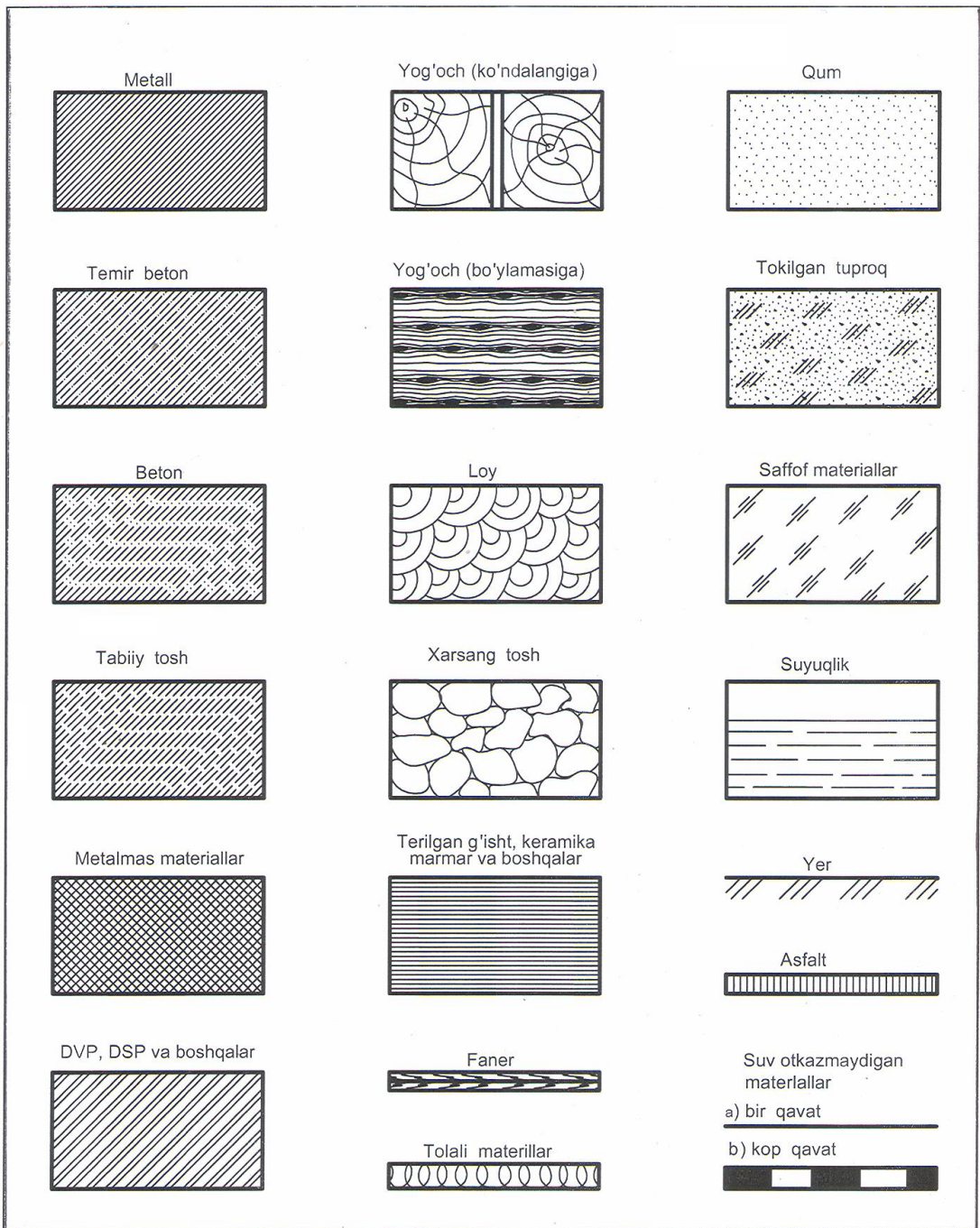




## **2-MASHQ**

# **MATERIALLARNI GRAFIK RAVISHDA BELGILASH**

## **MAVZUSI BO‘YICHA MASHQLAR BAJARILISH NAMUNASI**



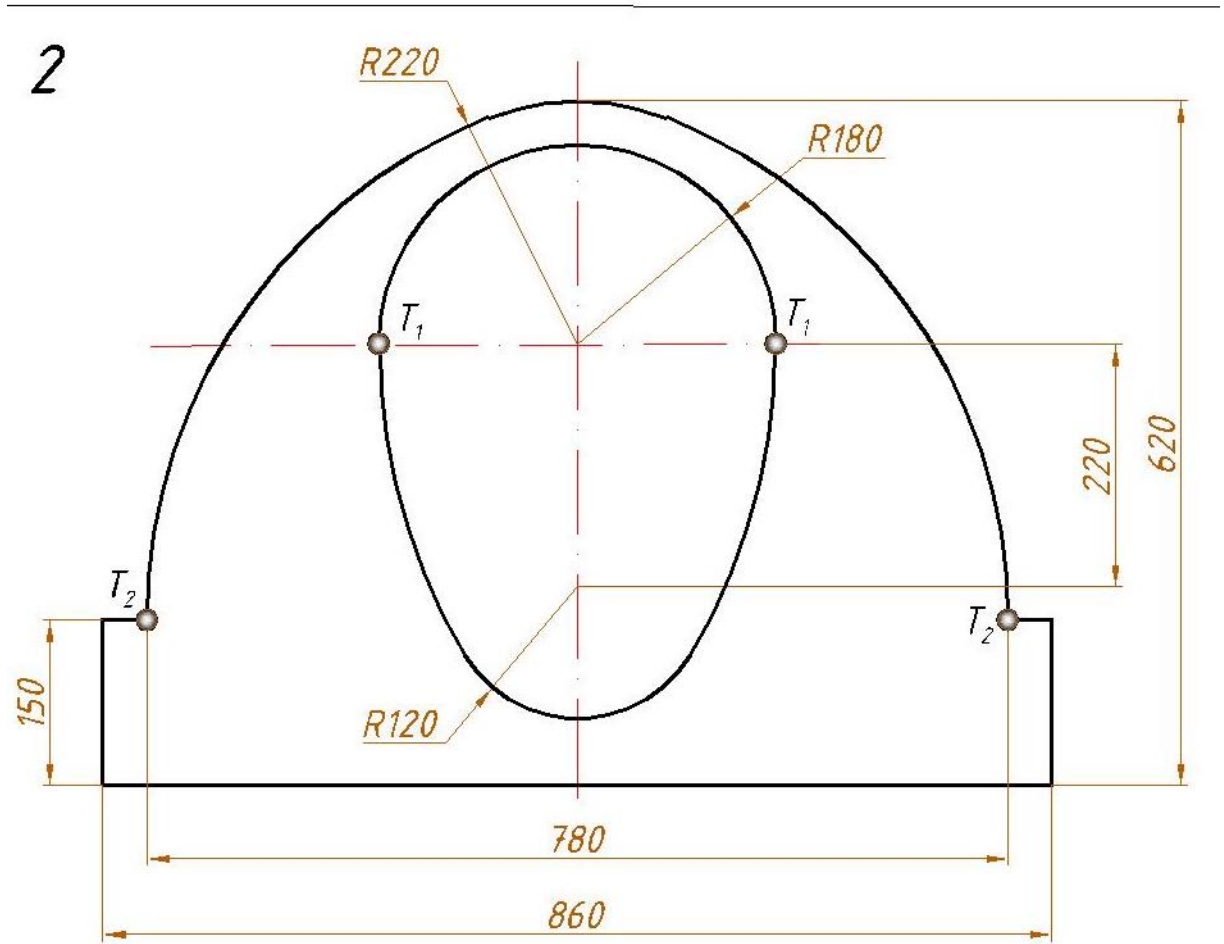
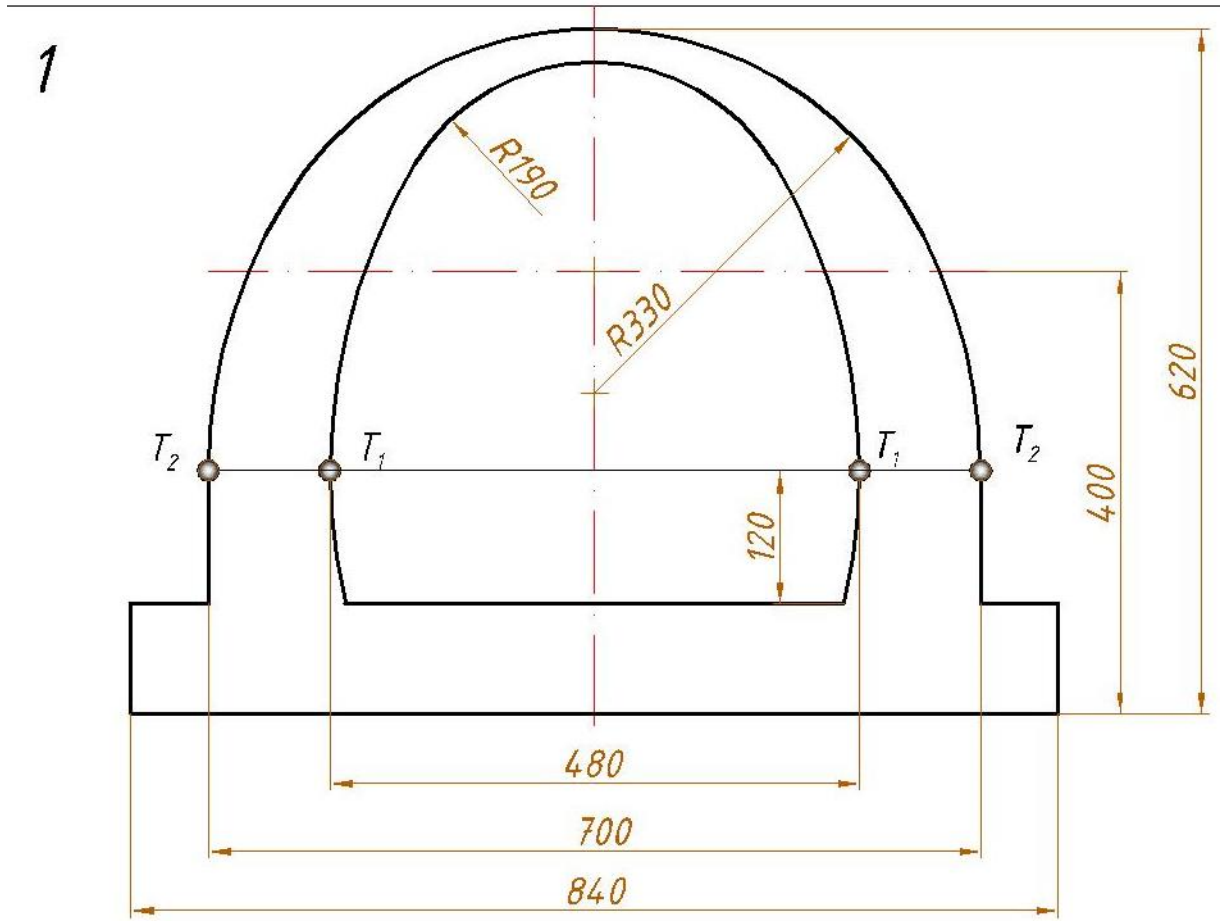
Uzg/Varaq	Xujjat	Imzo	Sana
Chizdi:	Soliyeva M		
Tekshirdi:	Urishev A		

**materiallarni grafik ravishda belgilanishi**

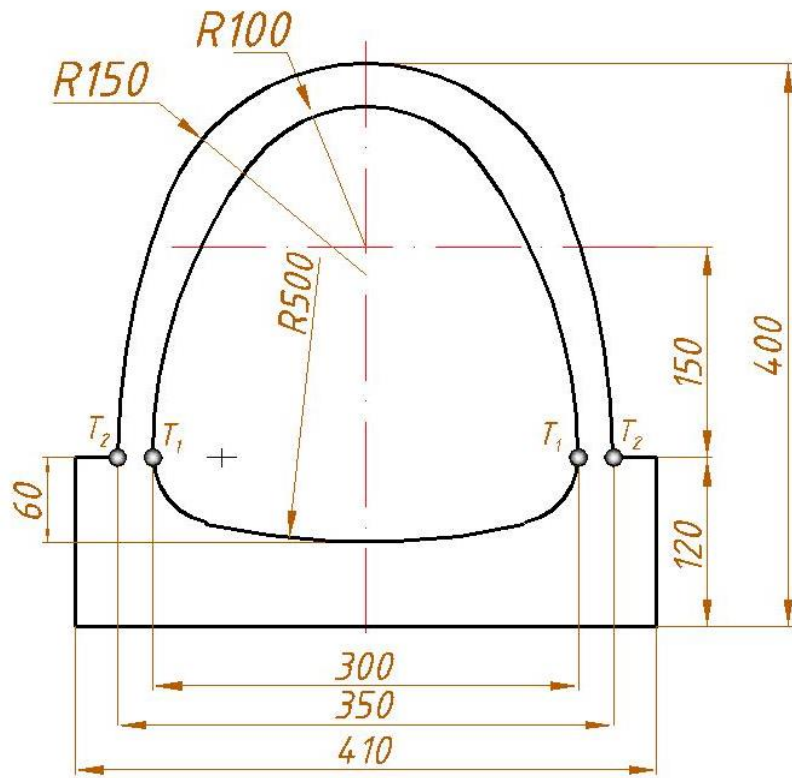
"ChG va MG" kafedراسي

Litera	Massa	Masshtab
Varaq	Varaqalar	
<b>GTS 1/5</b>		

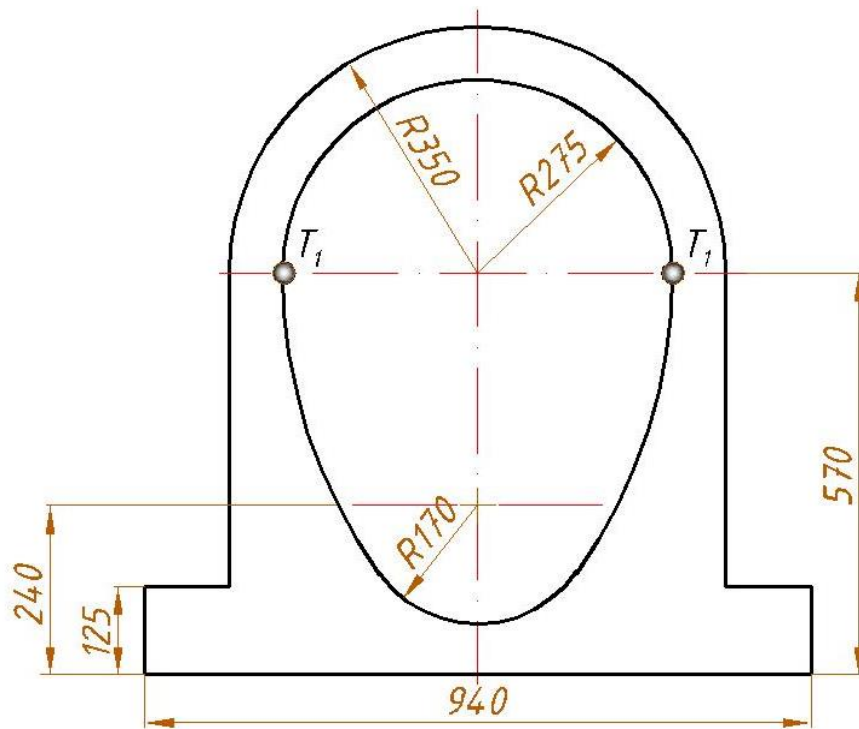
**3-MASHQ**  
**TUTASHMA**  
**MAVZUSIGA DOIR**  
**VARIANTLAR**



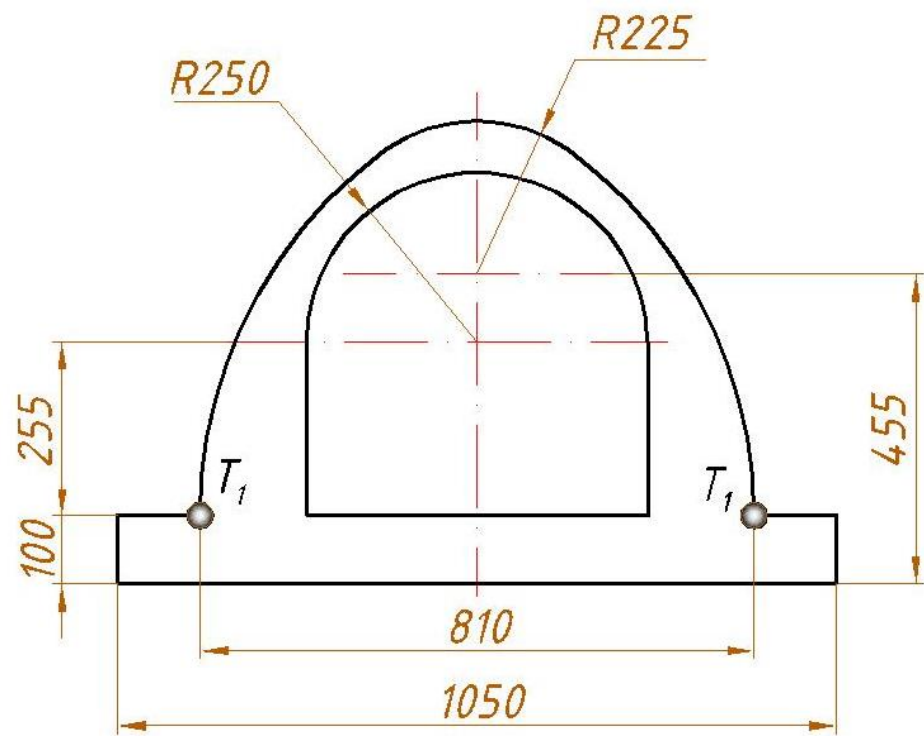
3



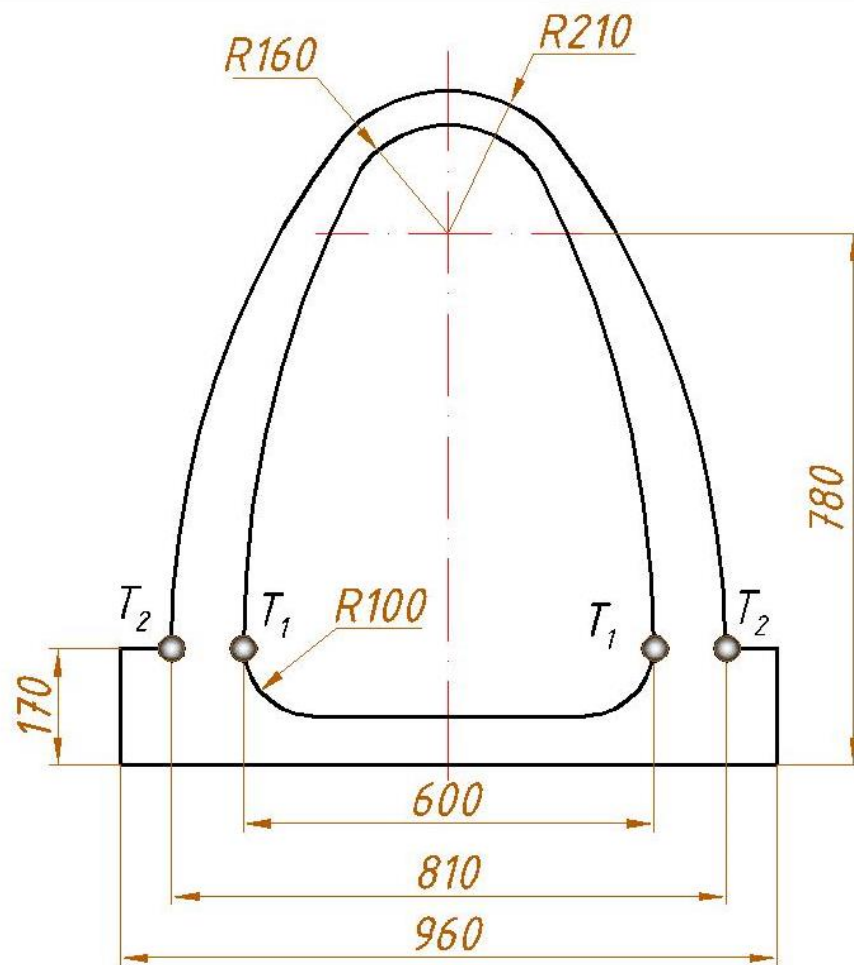
4



5

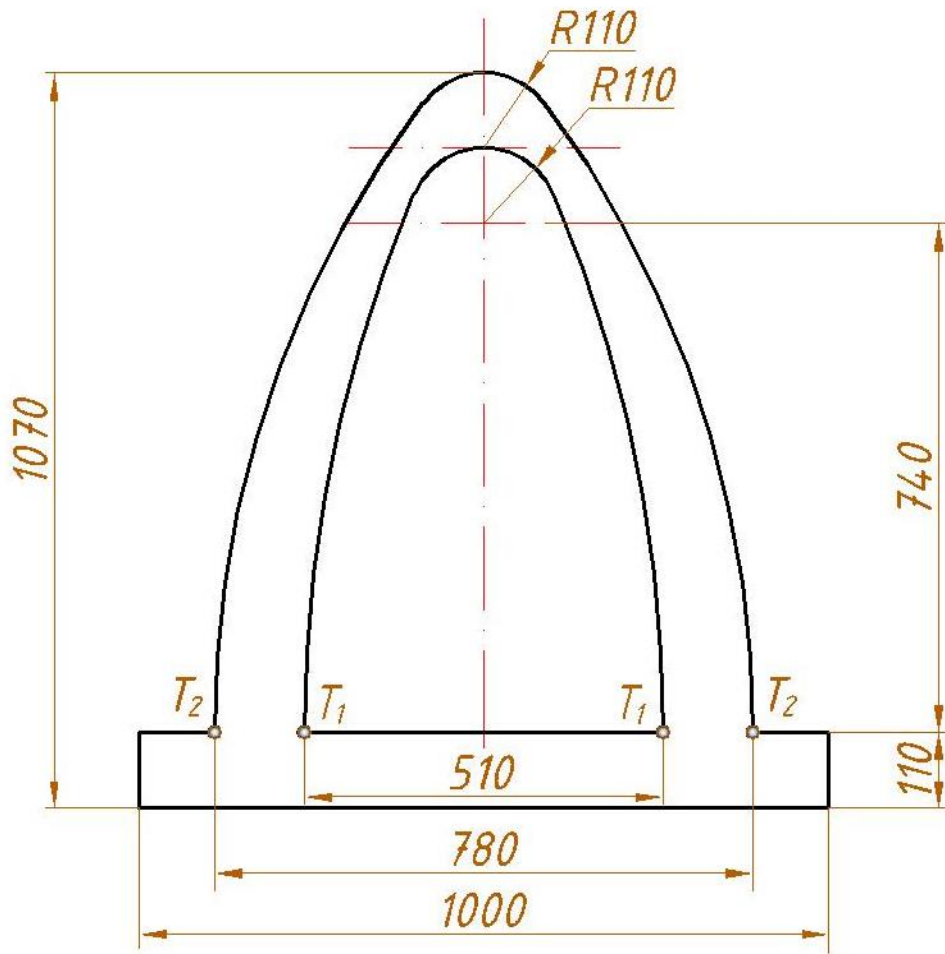


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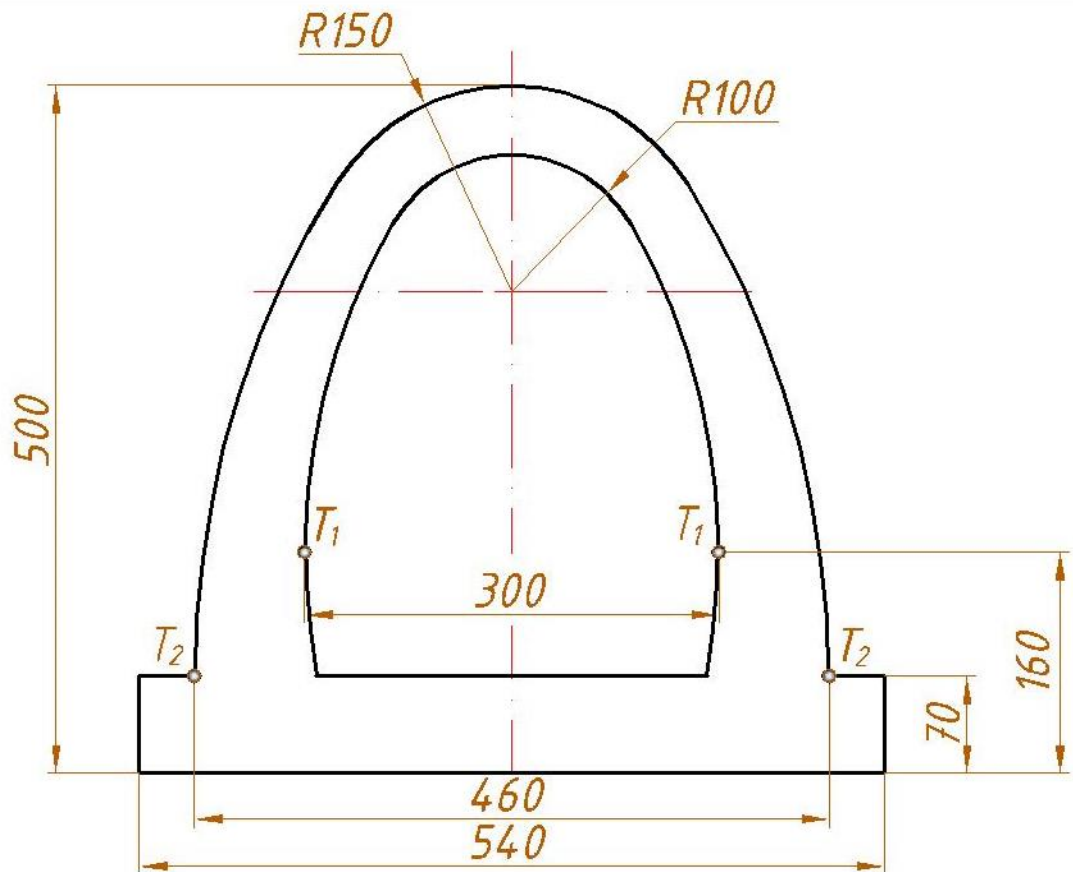




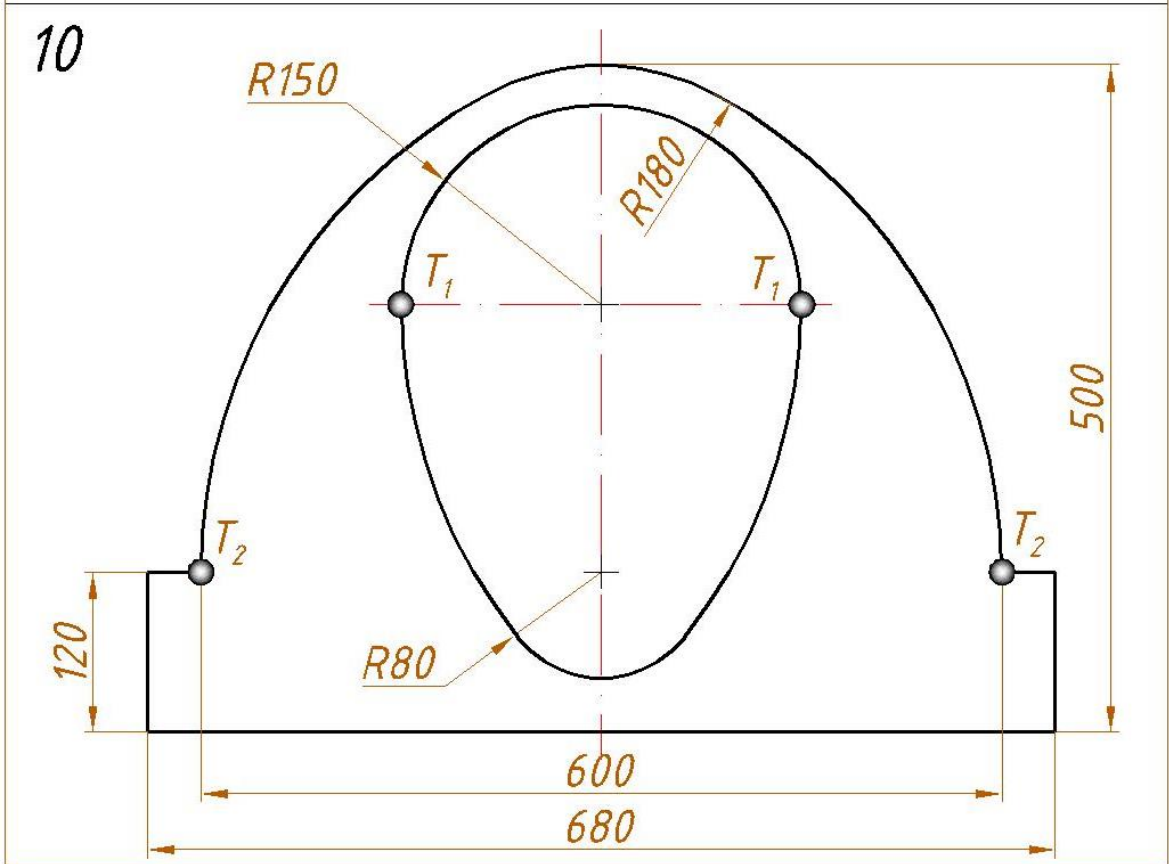
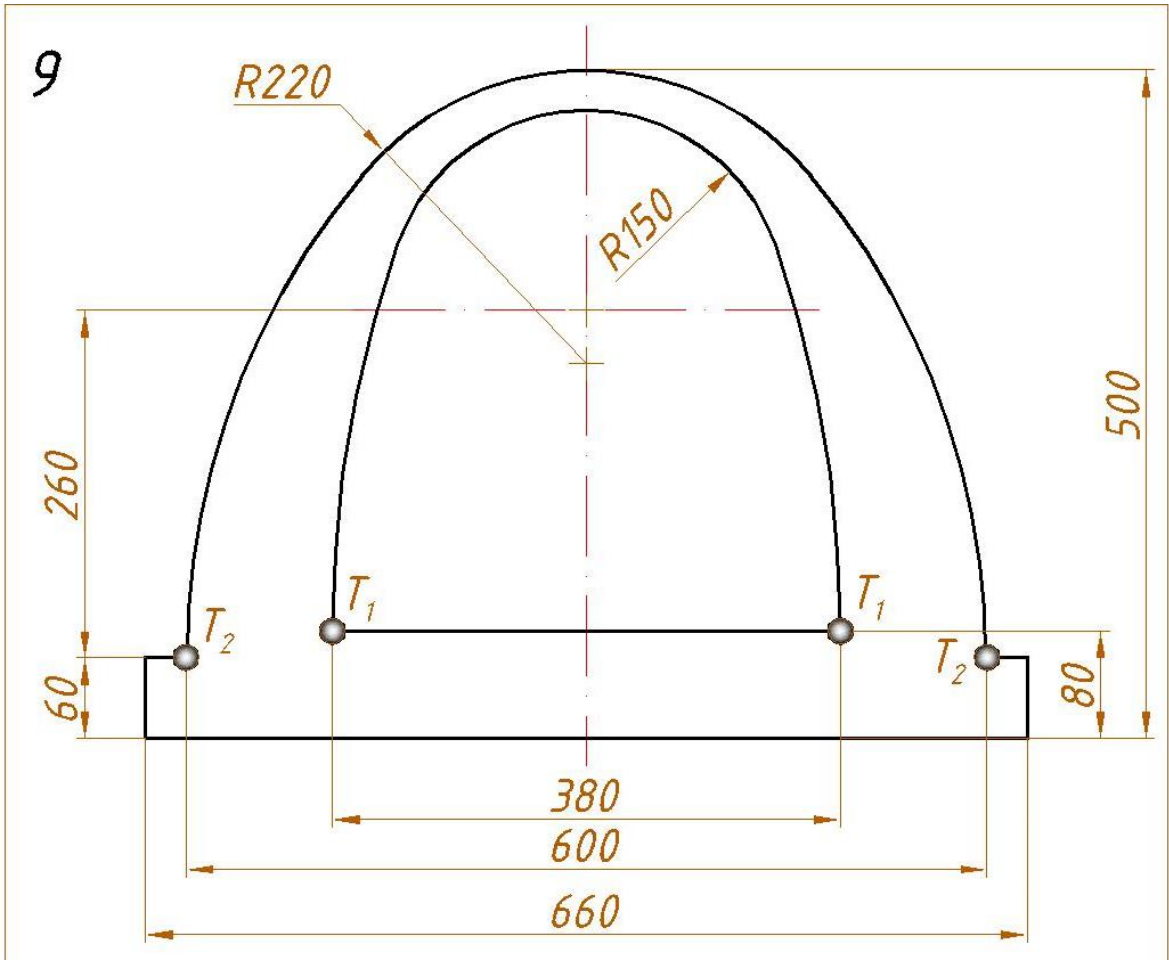
7



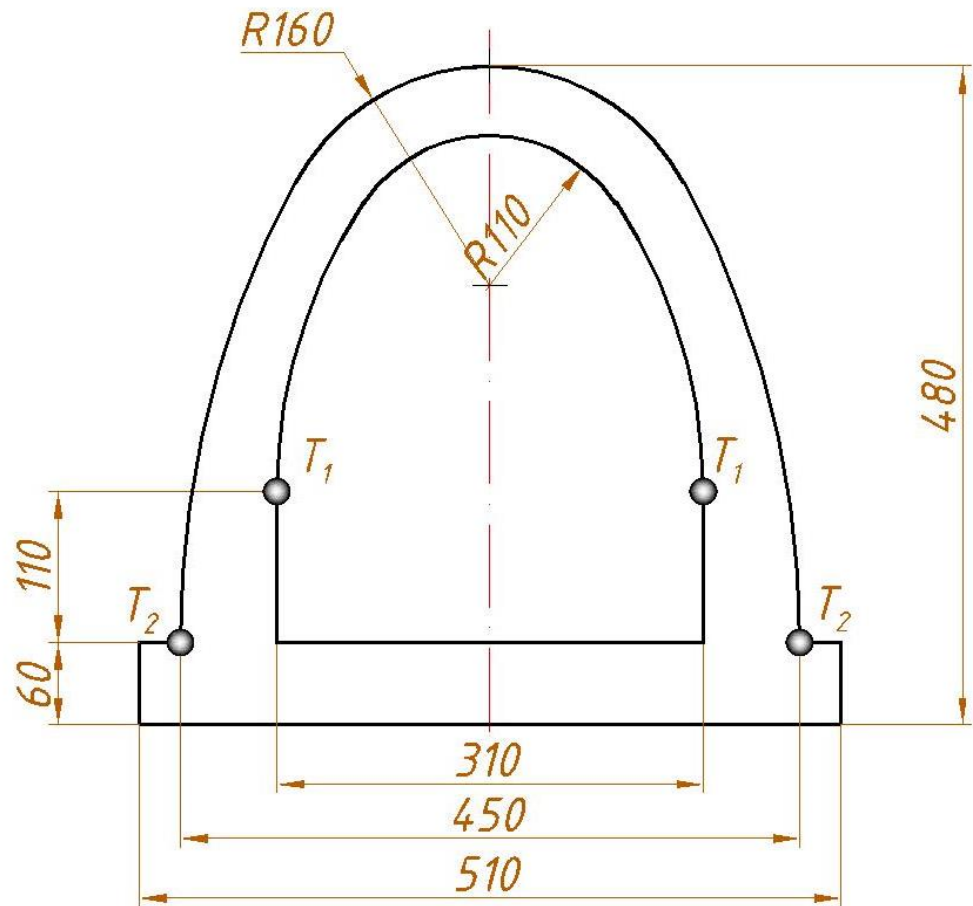
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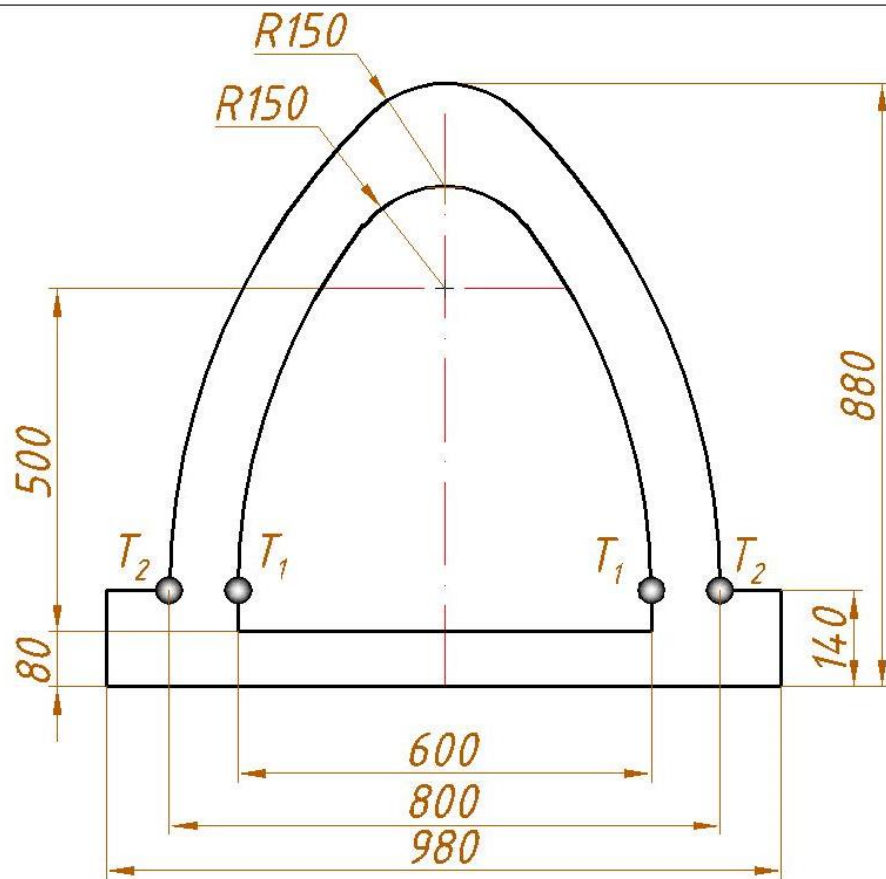




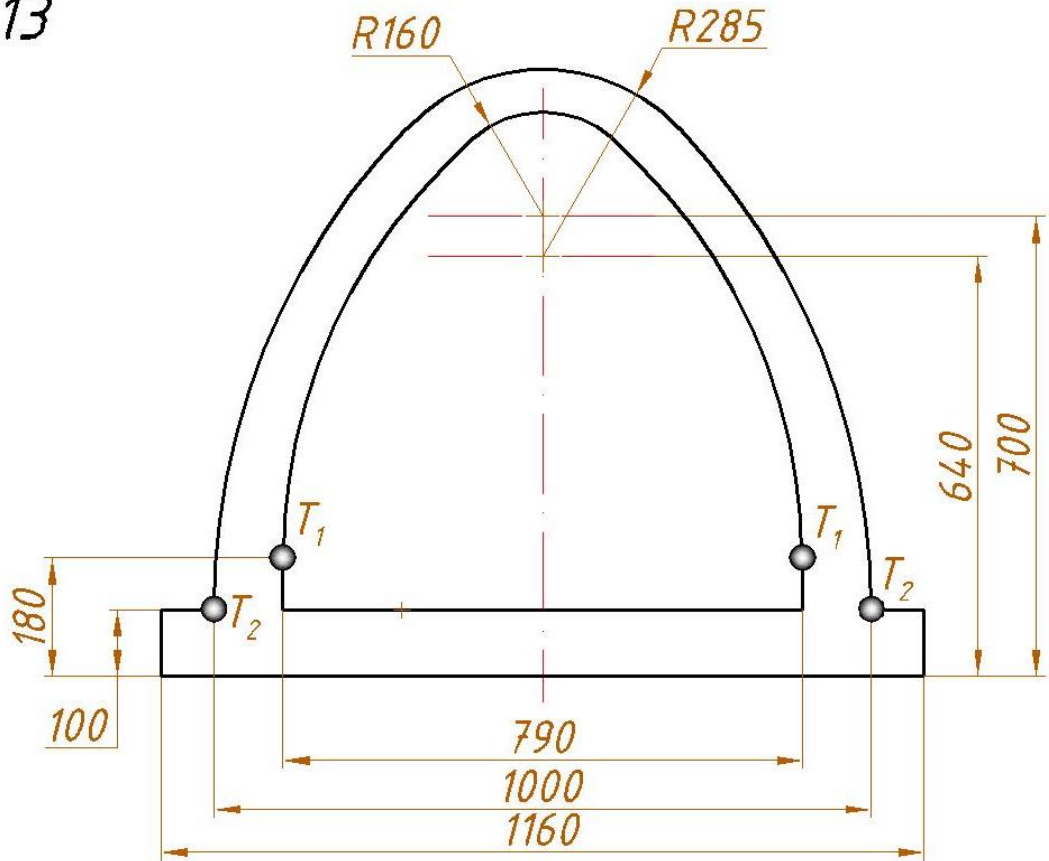
11



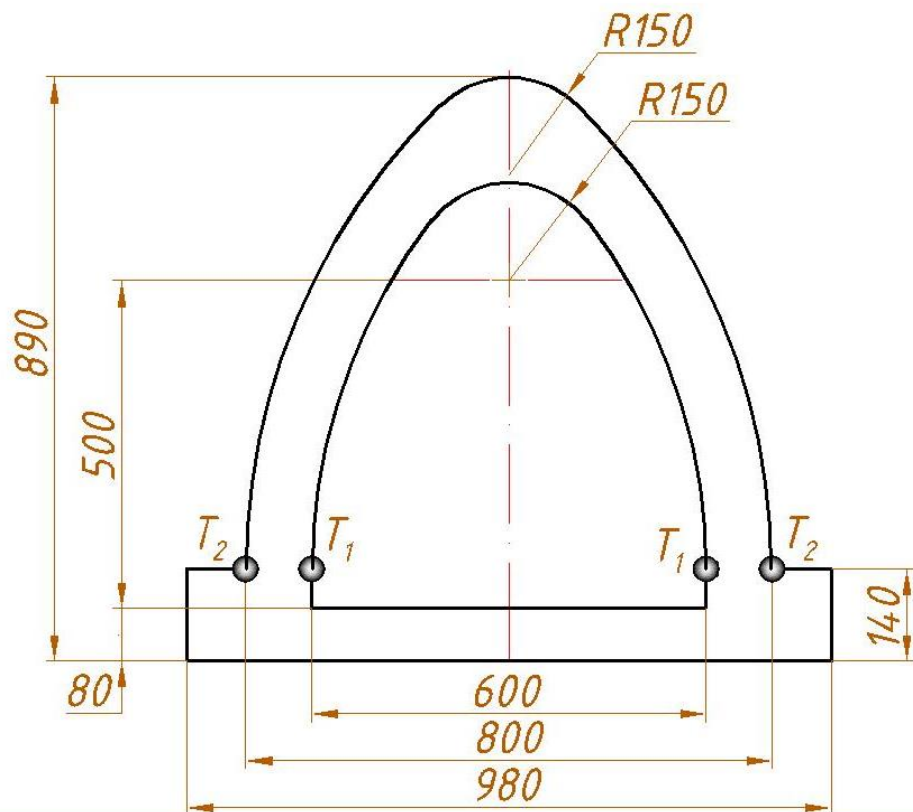
12



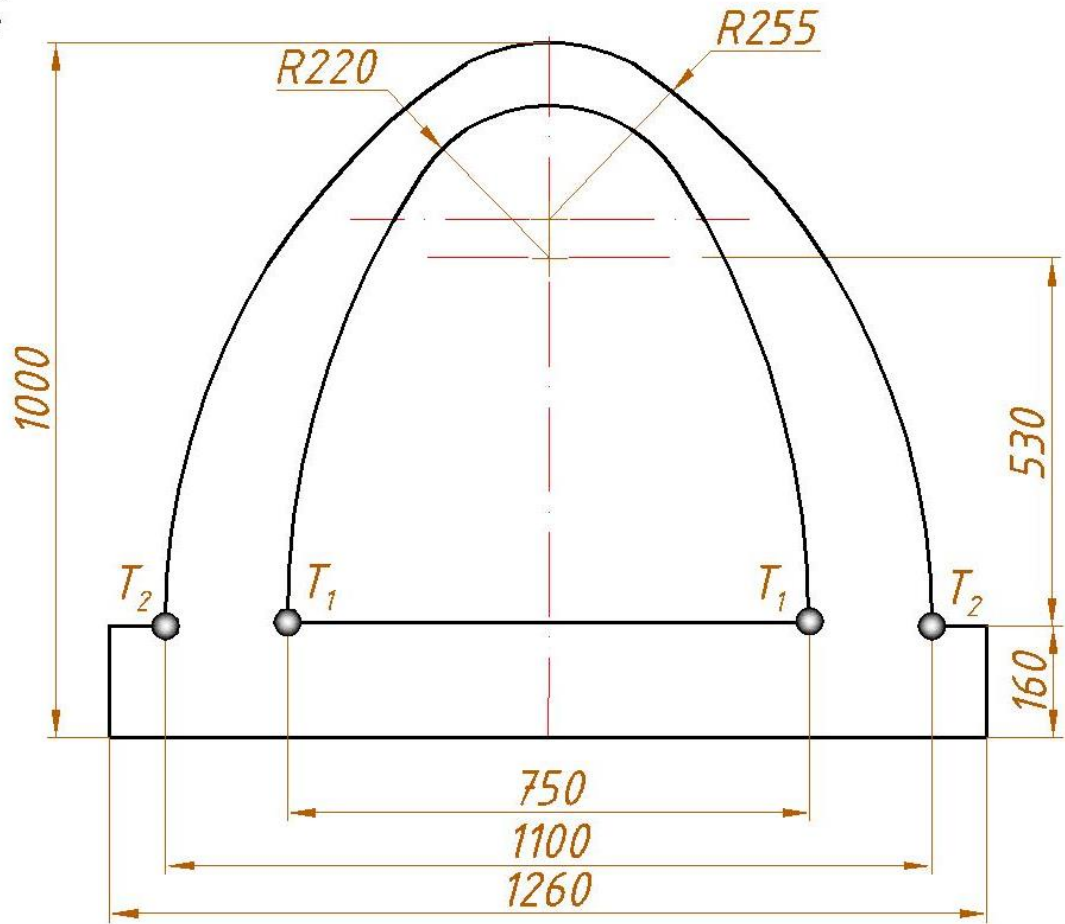
13



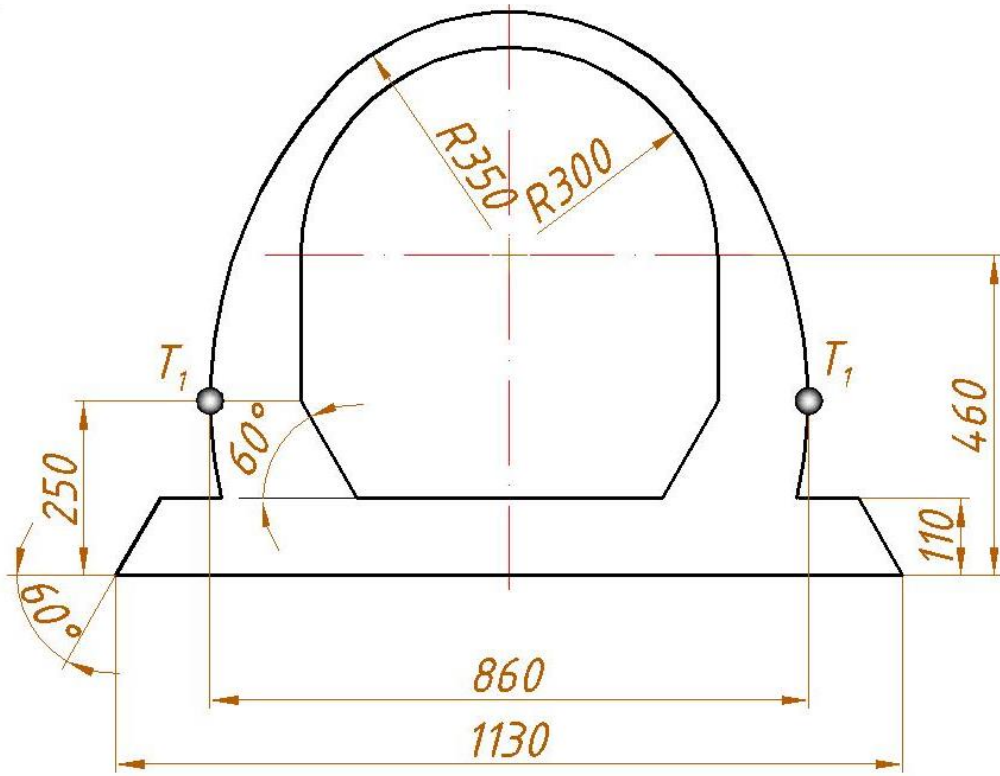
14

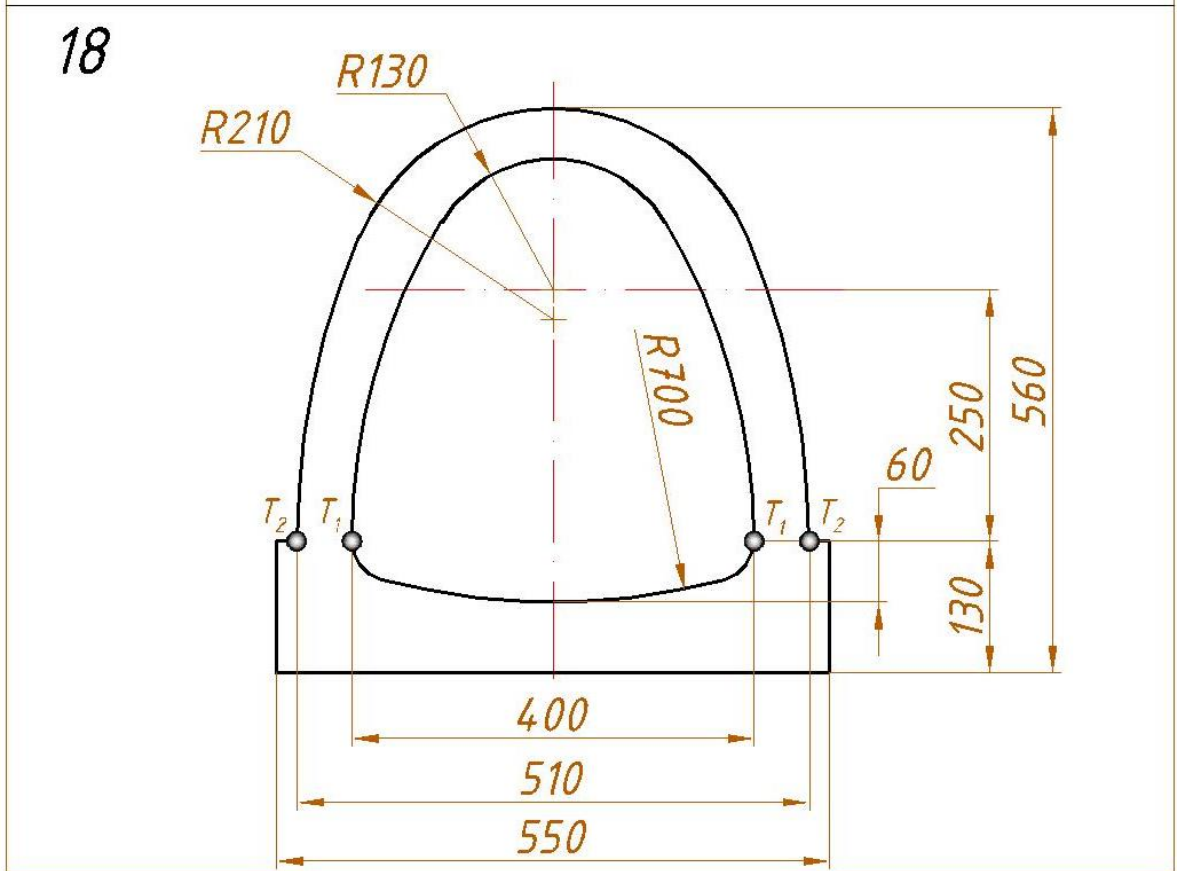
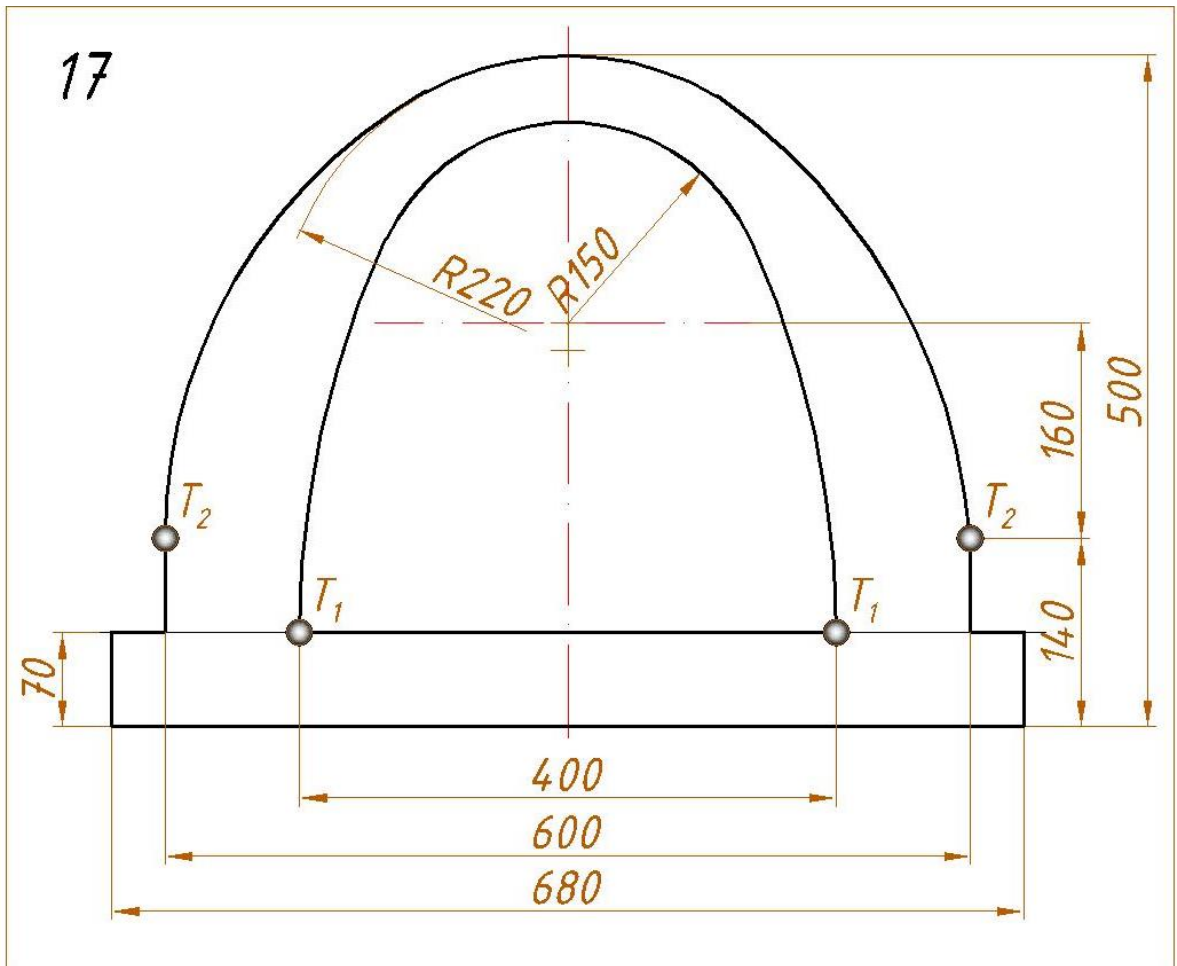


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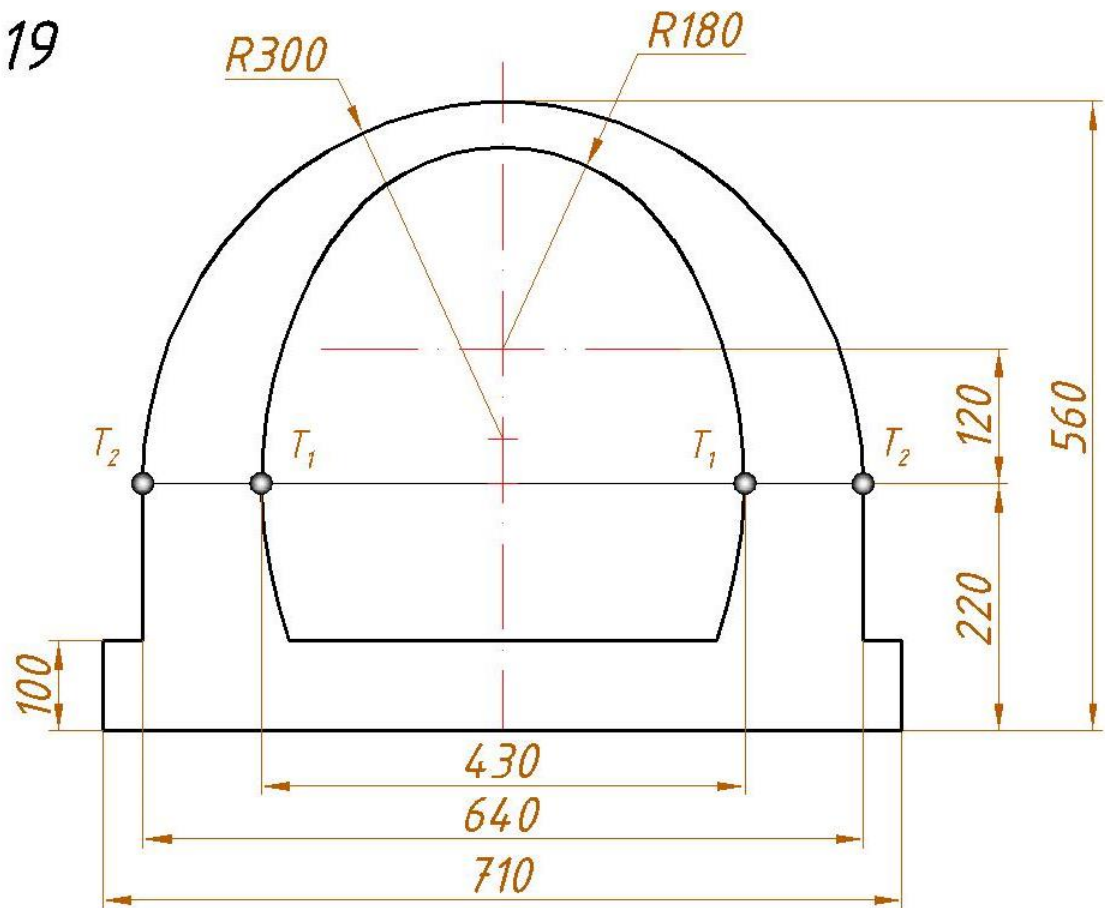


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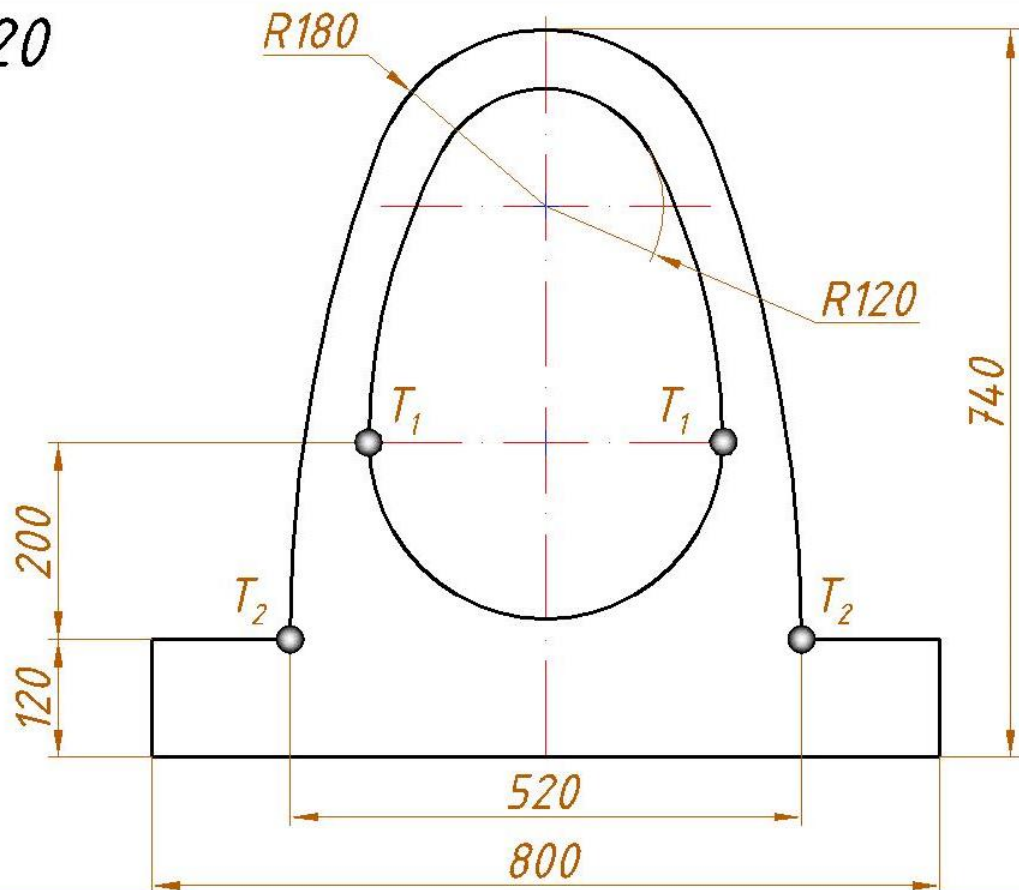




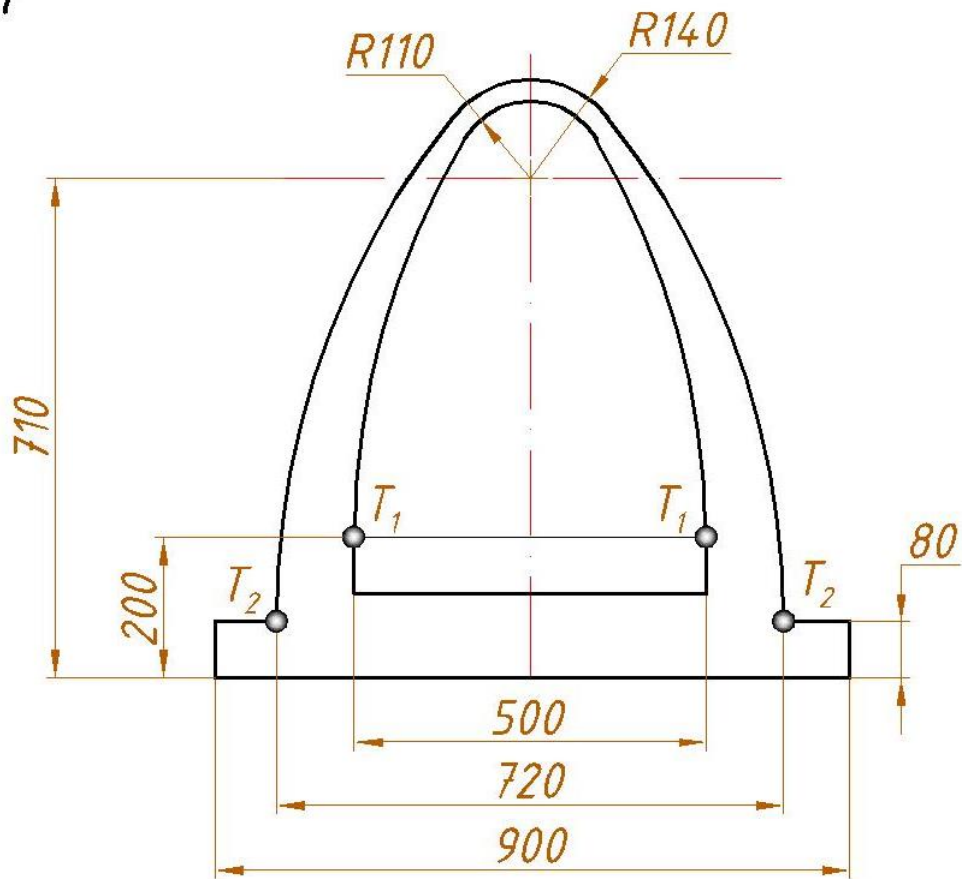
19



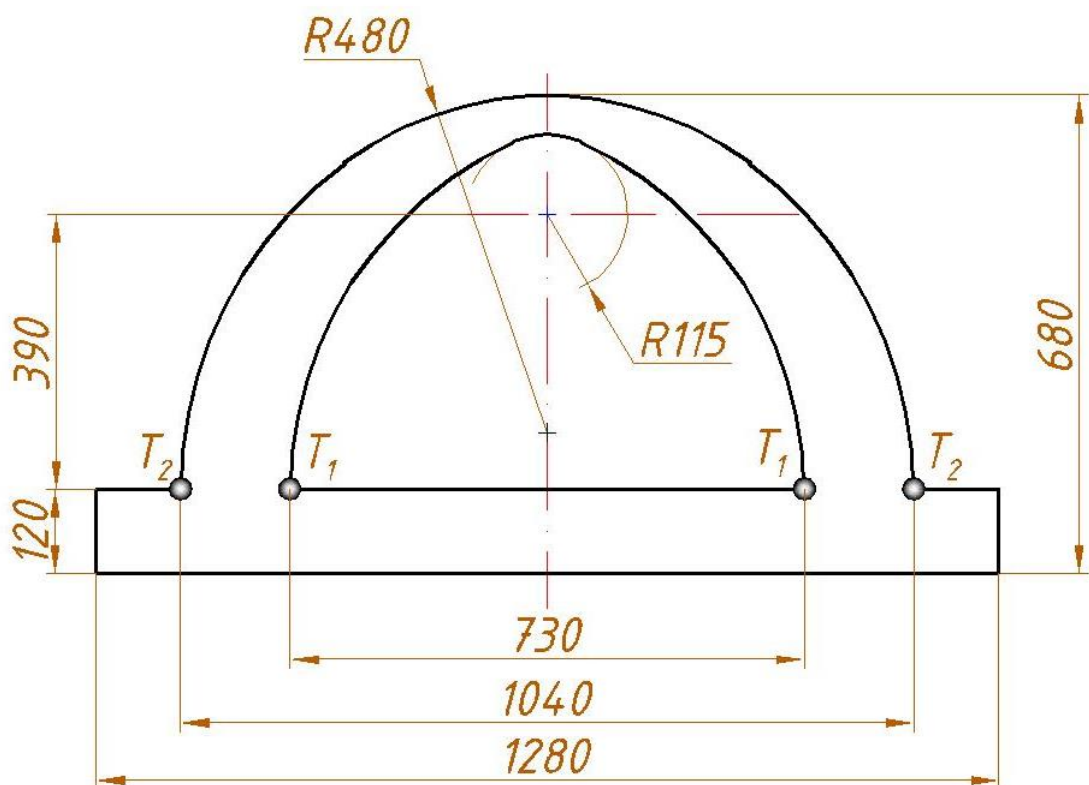
20



21

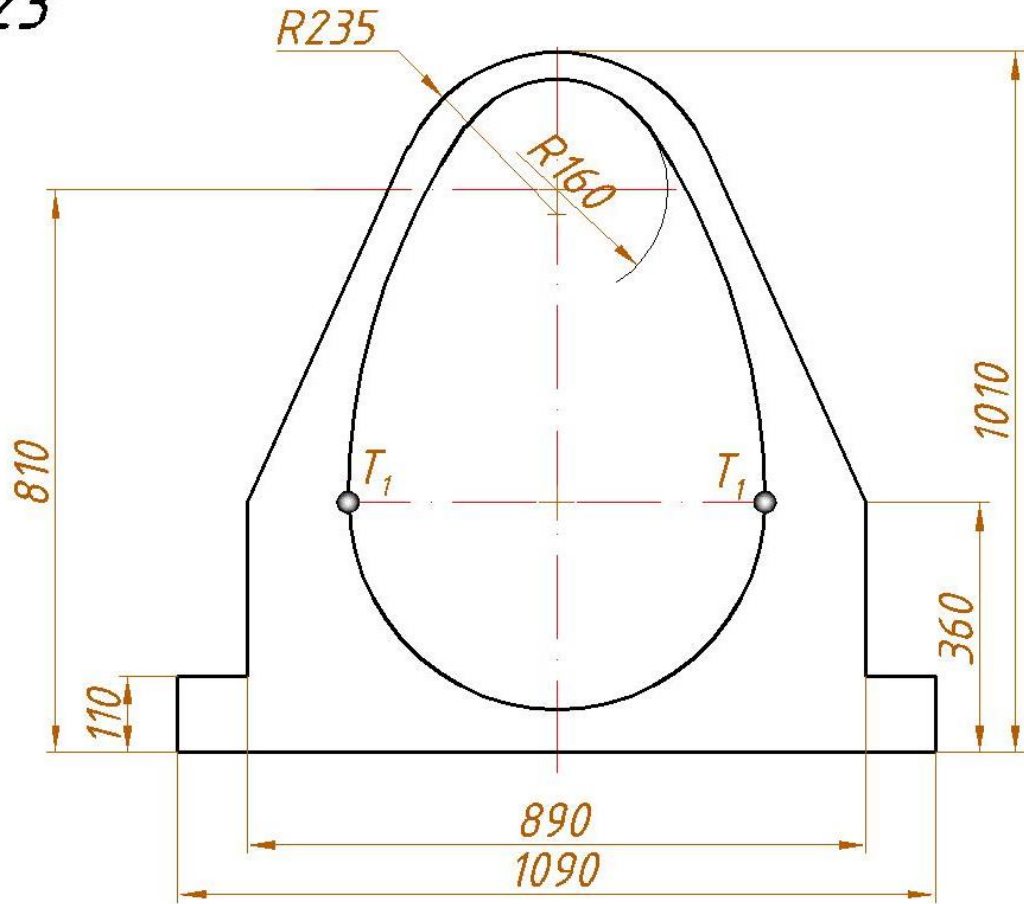


22

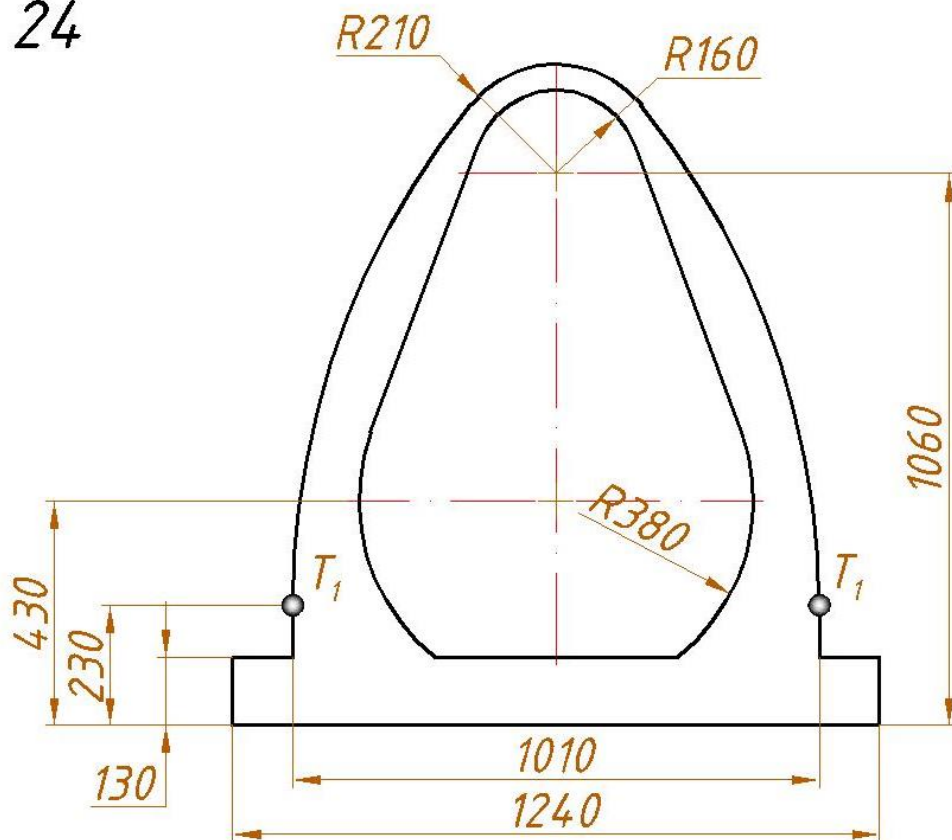




23

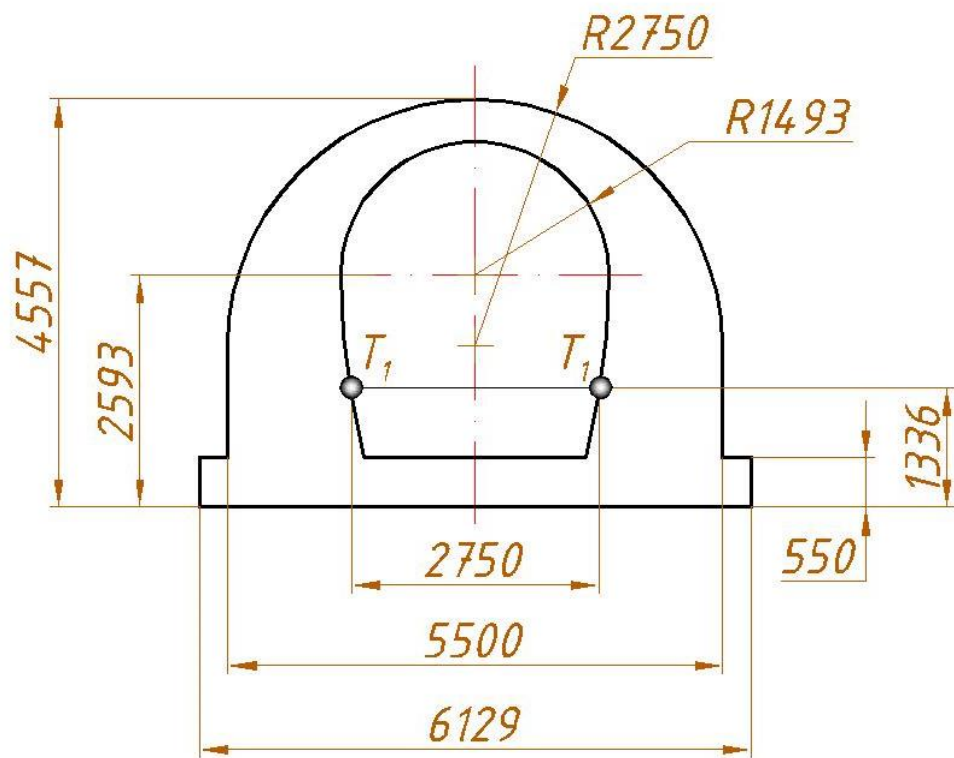


24

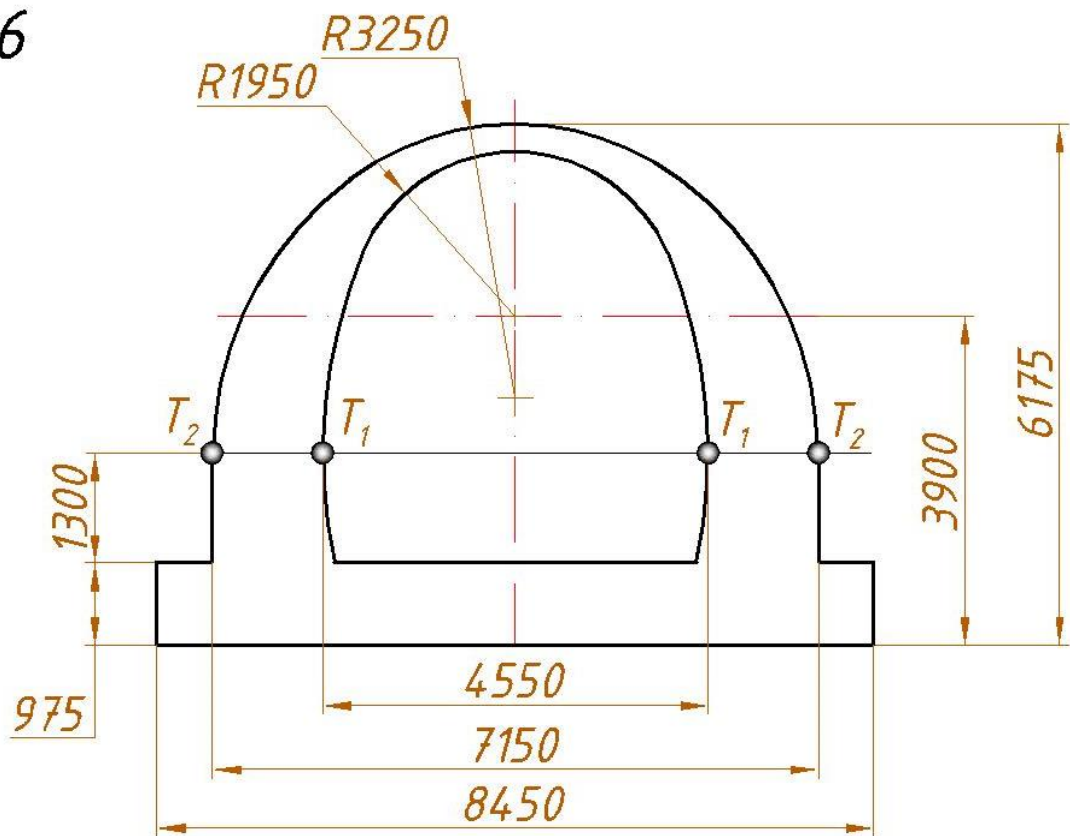




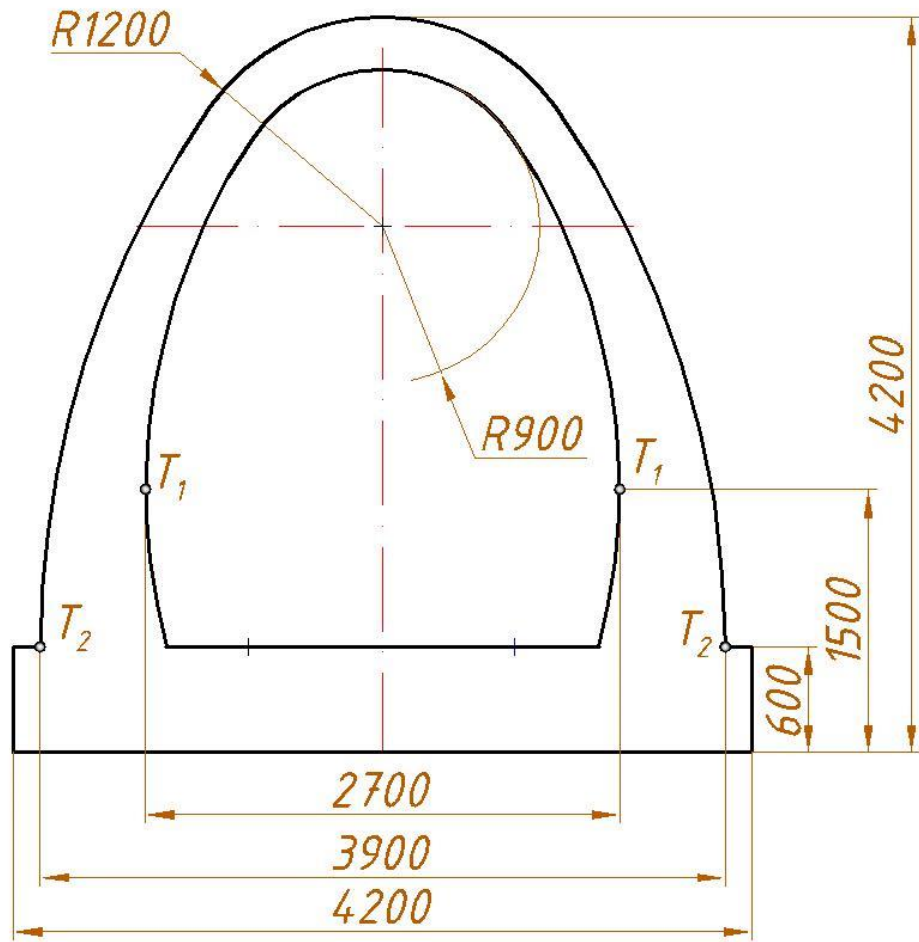
25



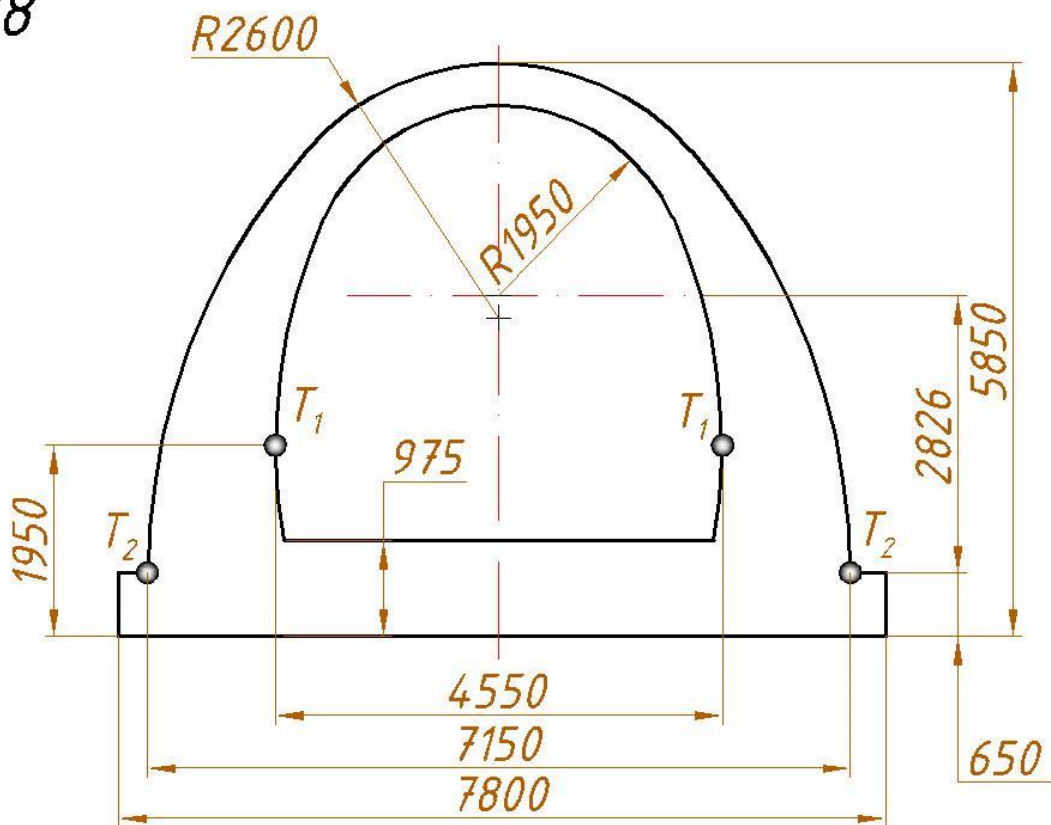
26



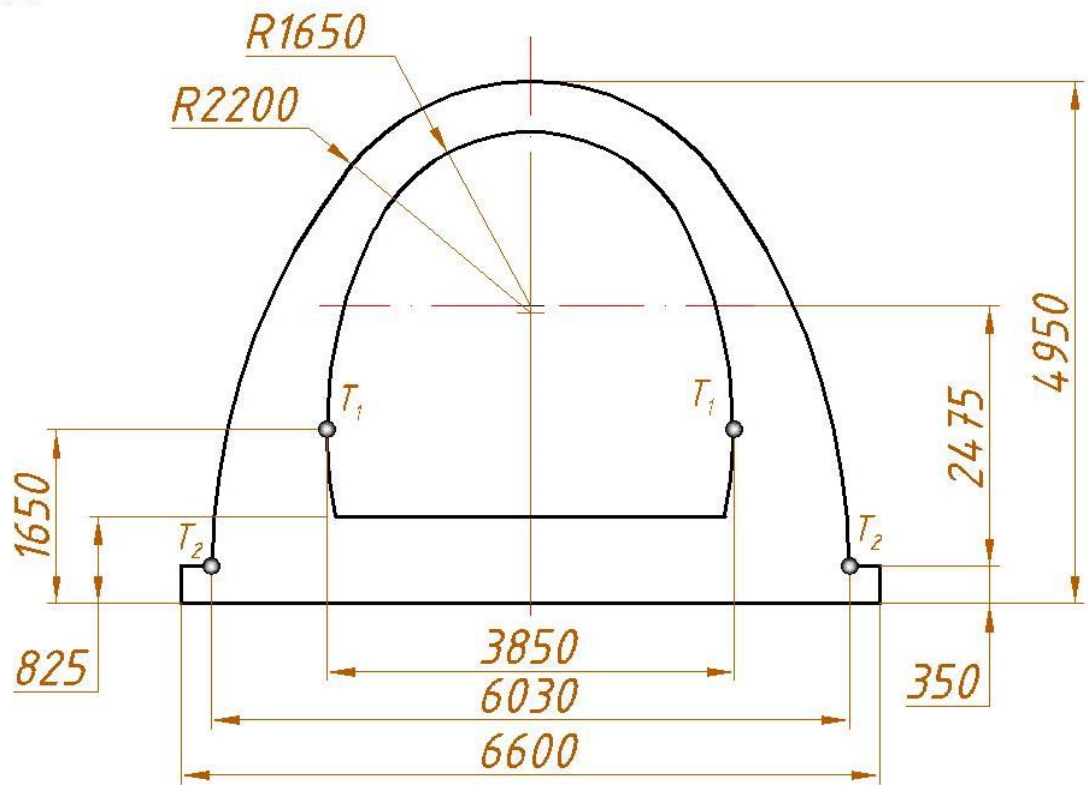
27



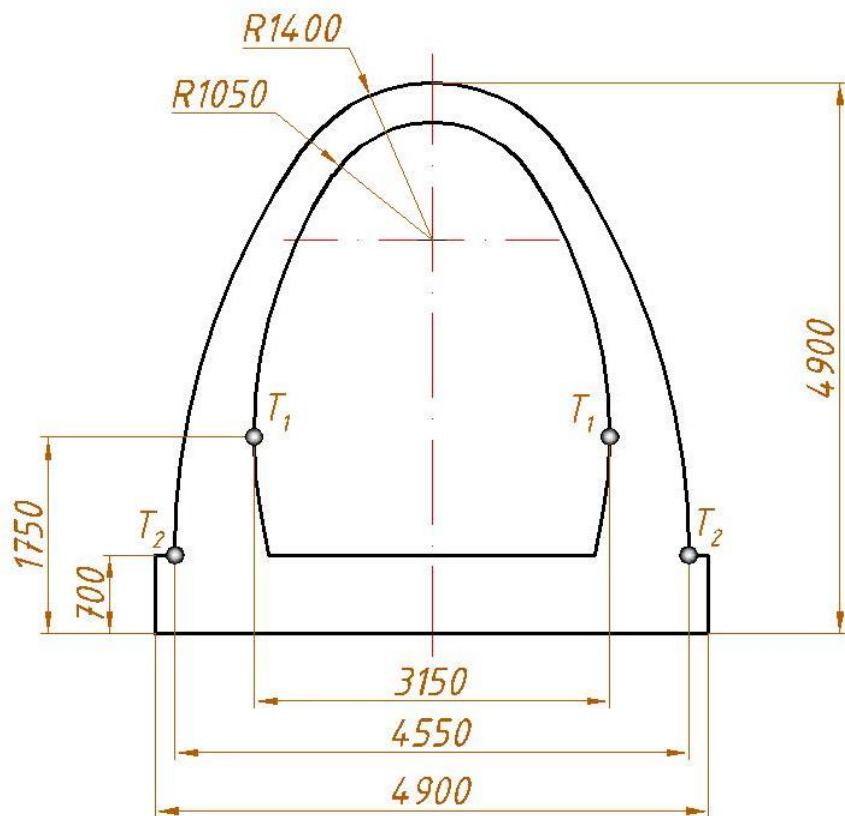
28



29



30



## **4-5-MASHQLAR**

**TO‘G‘RI CHIZIQ VA**

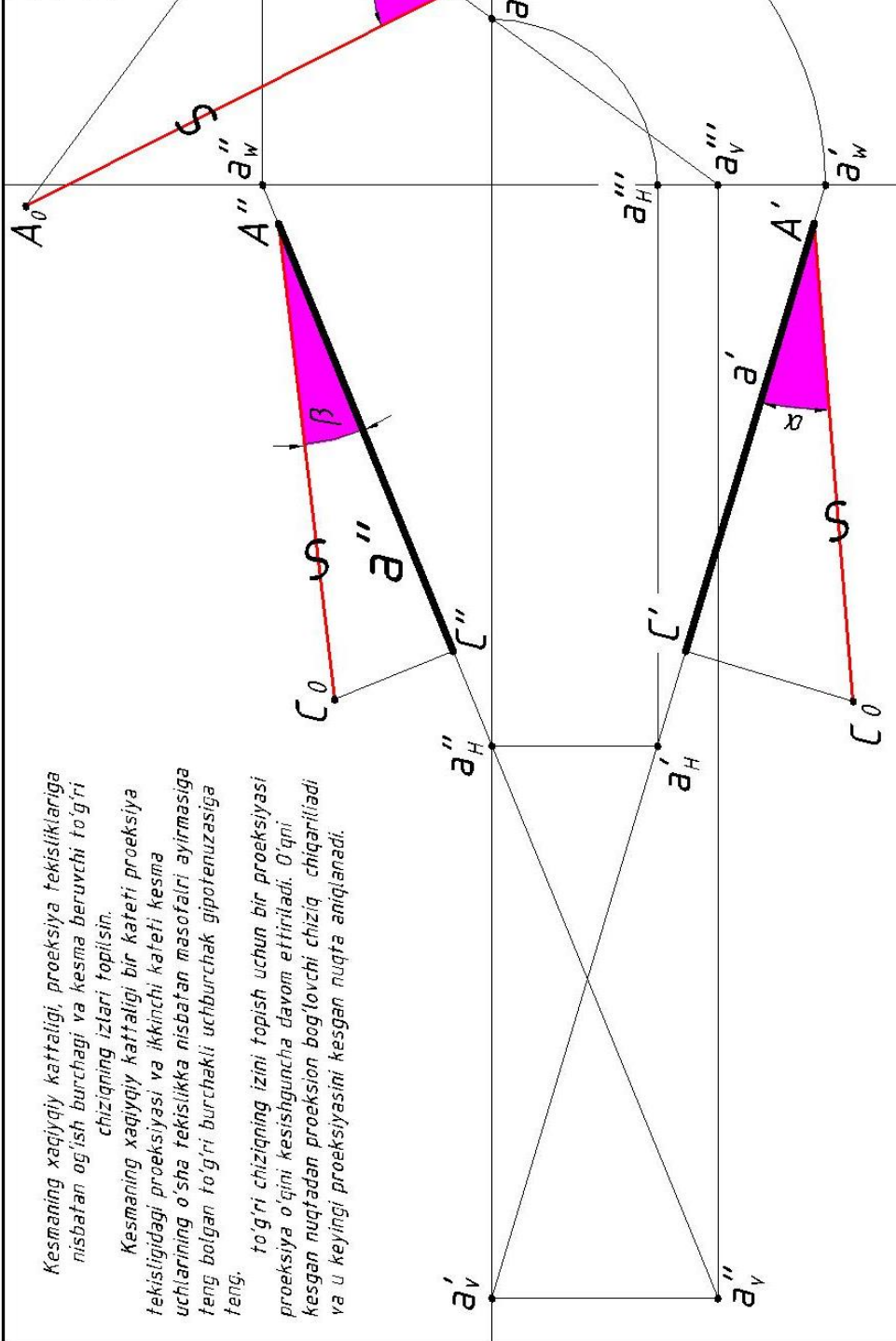
**TEKISLIK ANALIZI**

**MAVZUSIGA DOIR**

**VARIANTLAR**

№	Mavzu: 4) To'g'ri chiziq analizi 5) Tekislik analizi								
	A			B			C		
	X	Y	Z	X	Y	Z	X	Y	Z
1	105	40	10	70	10	85	15	60	55
2	0	100	30	100	50	10	60	0	100
3	135	50	20	20	85	60	80	5	105
4	0	80	70	60	10	120	140	25	10
5	10	85	70	125	50	15	65	15	110
6	20	50	15	65	90	105	120	5	60
7	130	45	10	45	10	55	95	0	95
8	125	20	80	65	95	135	30	60	30
9	120	30	20	60	5	115	5	85	60
10	25	40	25	80	90	115	135	10	80
11	120	65	10	70	10	100	20	85	55
12	120	5	70	60	95	115	25	30	15
13	25	70	50	115	50	5	75	5	75
14	100	45	10	60	15	85	15	70	60
15	100	35	15	50	5	80	0	75	40
16	110	10	40	50	90	90	10	45	15
17	20	90	60	75	15	105	125	50	30
18	10	35	10	60	75	95	115	5	55
19	100	40	10	60	10	85	10	70	55
20	70	0	90	105	50	10	20	80	55
21	25	35	120	85	95	15	100	15	55
22	40	0	100	100	40	0	10	90	10
23	50	95	0	10	85	70	125	0	15
24	50	90	95	10	45	15	110	10	45
25	60	50	115	110	40	15	10	0	75
26	10	40	15	40	80	100	110	10	60
27	60	10	95	10	80	60	110	50	15
28	115	15	55	45	75	95	10	35	5
29	60	70	80	115	10	45	15	25	10
30	100	40	5	70	5	90	10	60	65

17	X	Y	Z
A	10	83	55
B	55	10	90
C	120	50	10



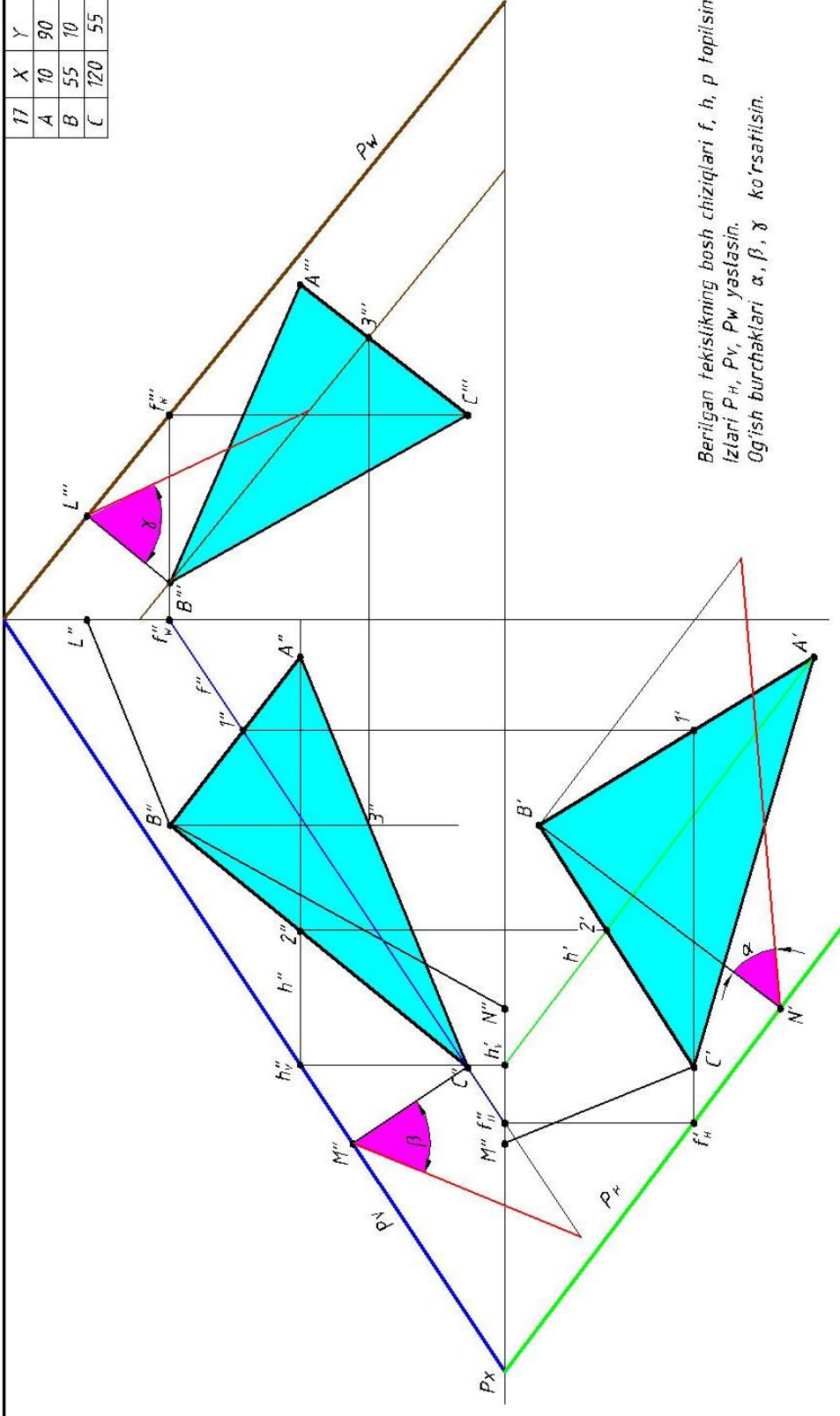
Kesmaning xaqiyyiy kattaligi, proeksiya tekisliklariga nisbatan og'ish burchagi va kesma beruvchi to'g'ri chiziqning izlari topilsin.

Kesmaning xaqiyyiy kattaligi bir kateti proeksiya tekisligidagi proeksiyasi va ikkinchi kateti kesma uchlarining o'sha tekislikka nisbatan masofalari ayirmasiga teng bo'lgan to'g'ri burchakli uchburchak gipotenuzasiga teng.

to'g'ri chiziqning izini topish uchun bir proeksiyasi proeksiya o'qini kesishguncha davom ettiriladi. O'qni kesgan nuqtadan proeksion bog'lovchi chiziq chiqariladi va u keyingi proeksiyasini kesgan nuqta aniqlanadi.

ChG va MG 01.17.04			
O'q/Varaq	Xujjat	Imzo	Sana
Clash	Qchilova M.		
Tekshirildi:	Urinshev A.		
Lifera	Masshab		
			1:1
Varaq №4	Varaqlar 6		
ChG va MG kafedrası			
IGTIQ va UF 1-3			

17	X	Y	Z
A	10	90	55
B	55	10	90
C	120	55	10



Berilgan tekislikning bosh chiziqlari  $f, h, p$  topilsin.  
 Izlari  $P_H, P_V, P_W$  yostasin.  
 Og'ish burchaklari  $\alpha, \beta, \gamma$  ko'rsatilsin.

Tekislik bosh chiziqlarining ikkita proeksiyasi o'qlarga  
 parallel yoki perpendikulyar bo'ladi.  
 Tekislikning eng katta og'ish chizig'i uning izlariga mos  
 ravishda perpendikulyar bo'ladi.  
 Tekislikdagi nuqtaning bir proeksiyasi tekislik izida bo'lsa  
 uning keyingi proeksiyasi proeksiyalar o'qida bo'ladi va aksincha.

ChG va MG 01.17.06		Lifera	Massa	Masshtab
TEKISLIK ANALIZI				1:1
ChG va MG kafedrası		Uyjar	Imco	
		Chizib: Bobilova M.		
		Tekshirib: Urinshv A.		
		Larag №6		Laraglar 6
				IGTIQ va UF 1-3

**6-MASHQ**

**KO'RINISHLAR,**

**IZOMETRIYA**

**VA**

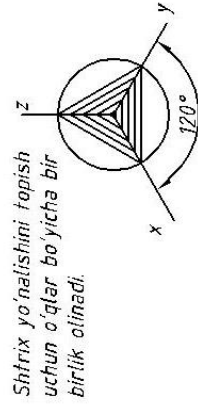
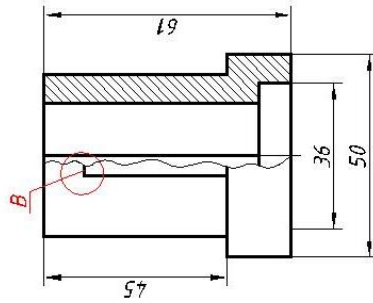
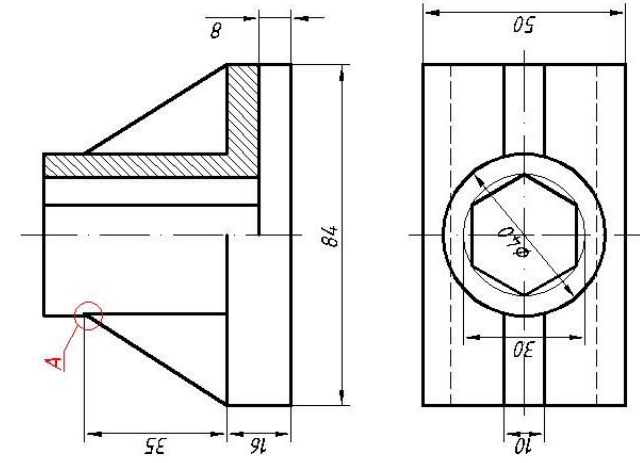
**ODDIY QIRQIM**

**MAVZUSIGA DOIR**

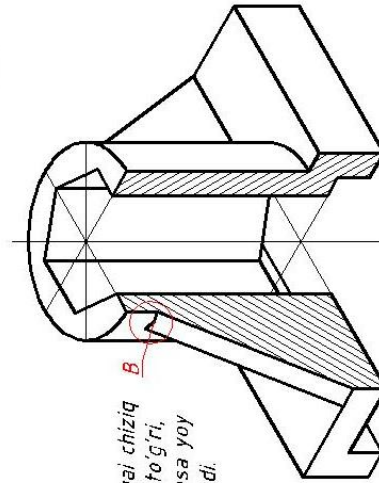
**VARIANTLAR**



*Berilgan ikki ko'rinishiga asosan uchinchi topilsin. Kerakli qirg'im berilsin. Chorak qirg'imli izometriyasi bajarilsin*

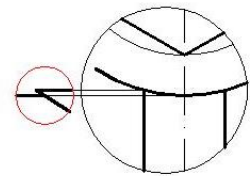


*Shtrix yo'natishini topish uchun o'qtlar bo'yicha bir birlik olinadi.*

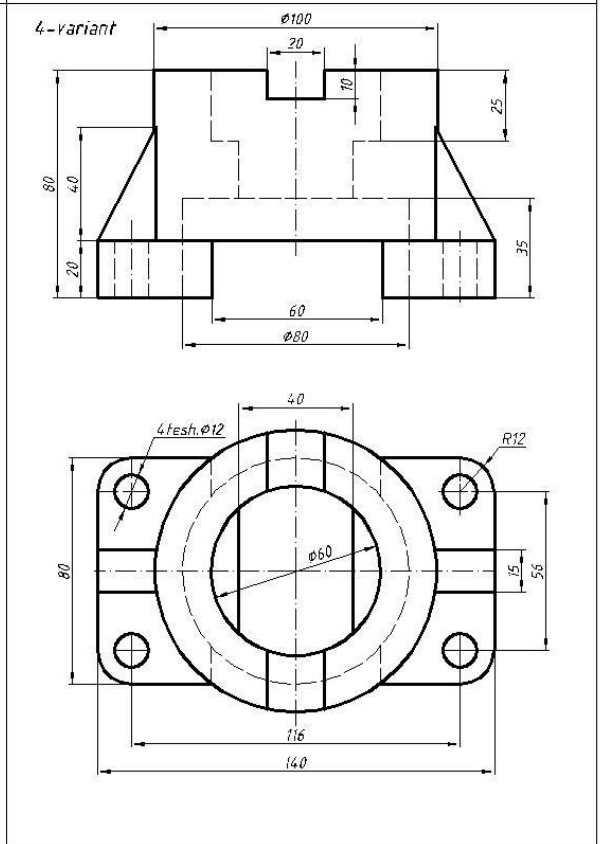
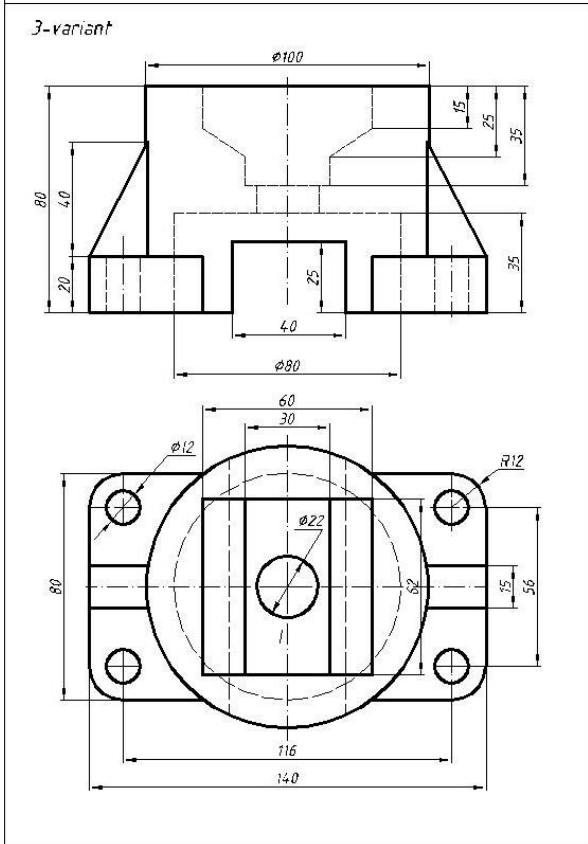
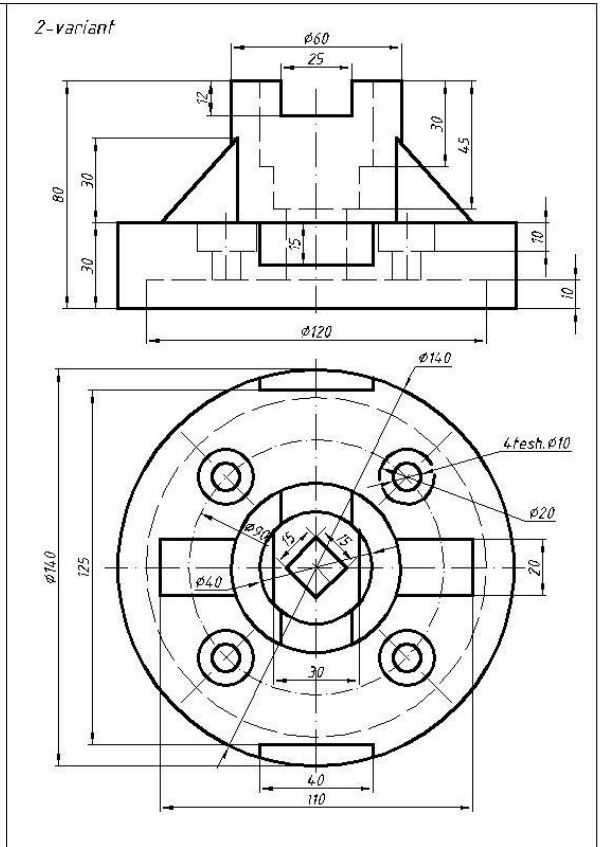
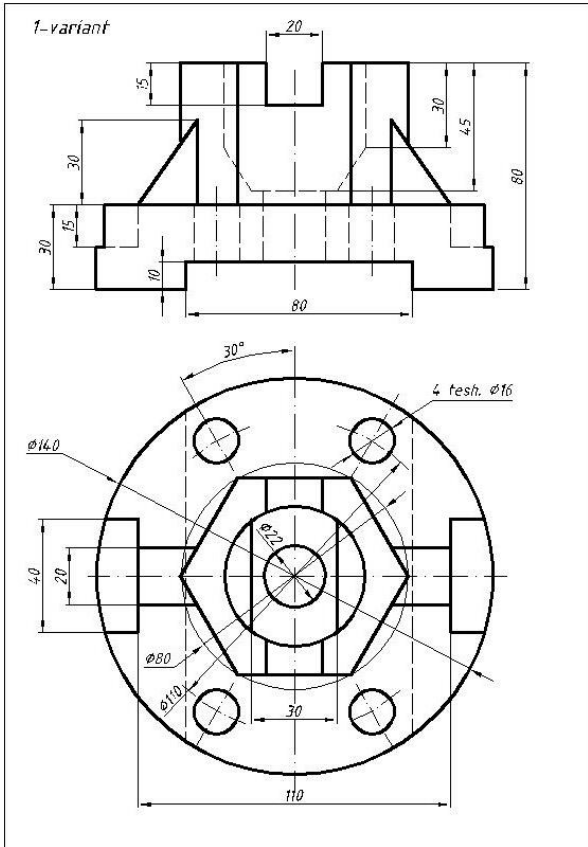


*B pozitsiyadagi chiziq ko'rinishlarda to'g'ri, izometriyada esa yoy qilib ko'rsatiladi.*

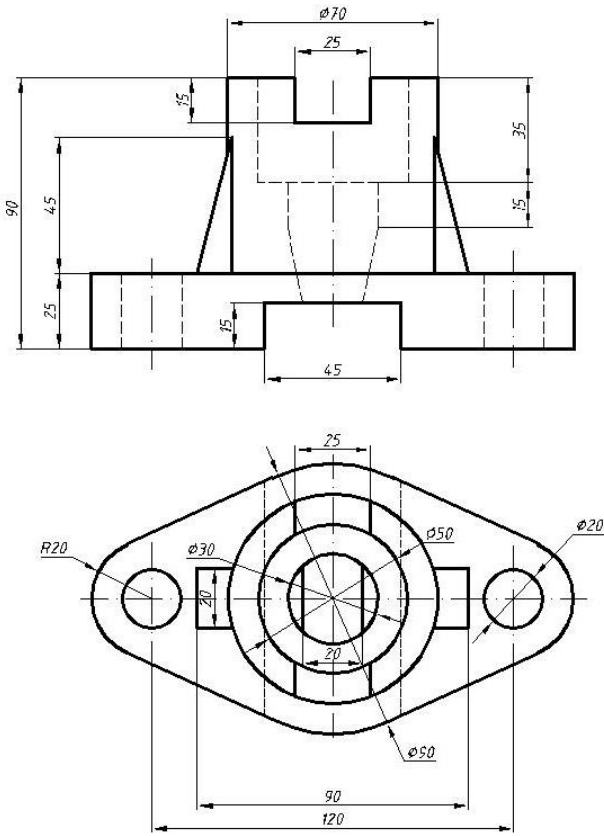
*A uchastkada silindr chetki yasovchisining surilib qolishi M 2.1*



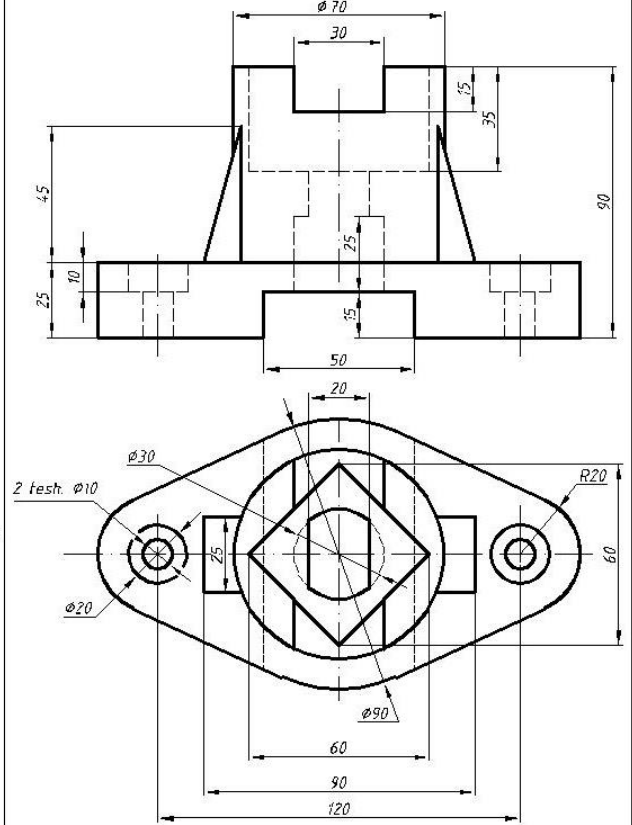
ChG va MG 02.17.01		Lifera	Massa	Masshtab
Ko'rinishlar. Izometriya		Xujjat	Imzo	Sana
ChG va MG kafedrasi		Ochiqlov M.	Ushnev A.	1:1
IGTIQ va UF 1-3		Tekshiradi	Yanaqlar 8	



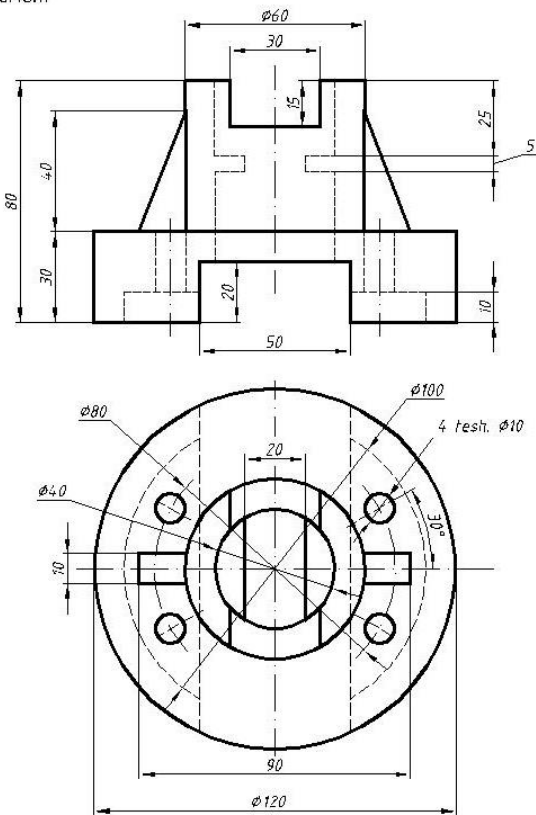
5-variant



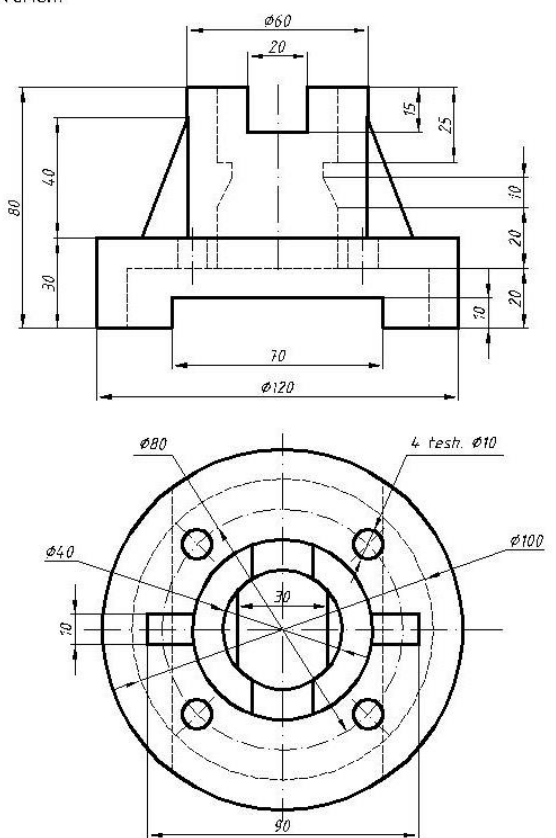
6-variant



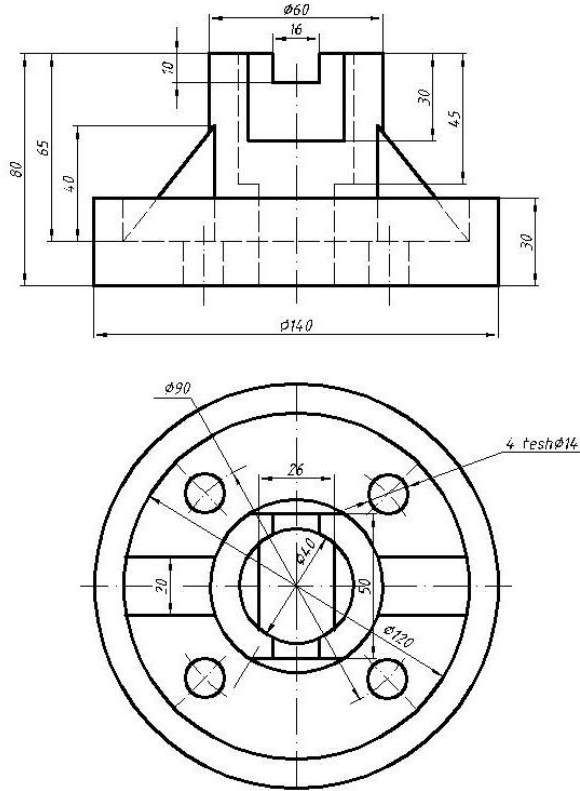
7-variant



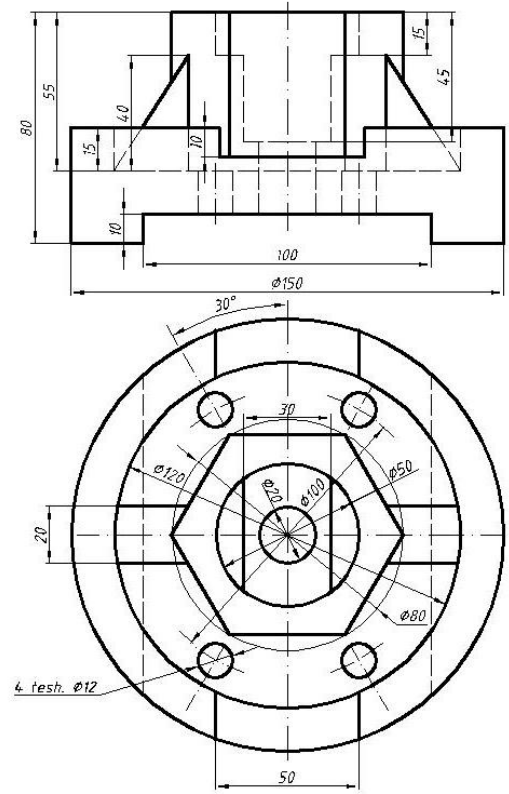
8-variant



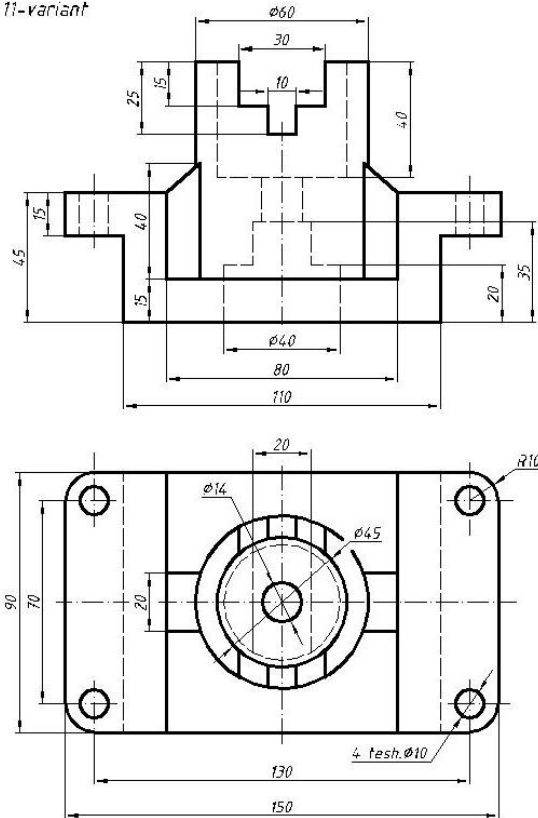
9-variant



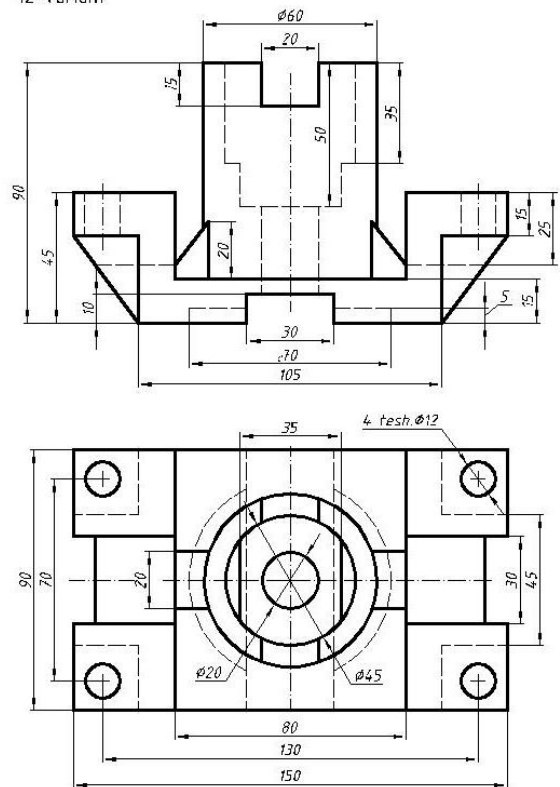
10-variant



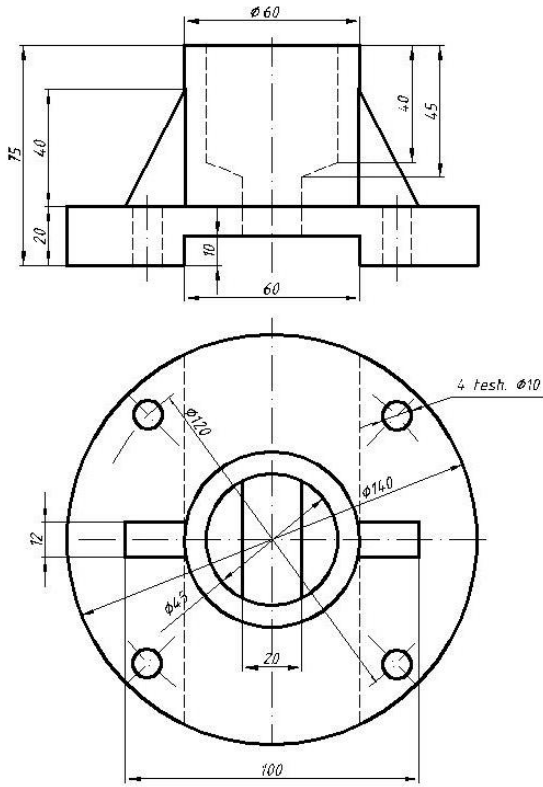
11-variant



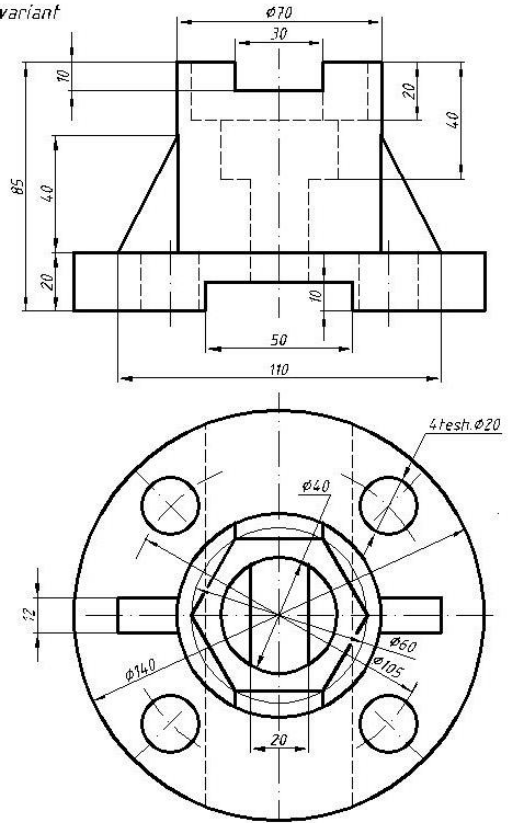
12-variant



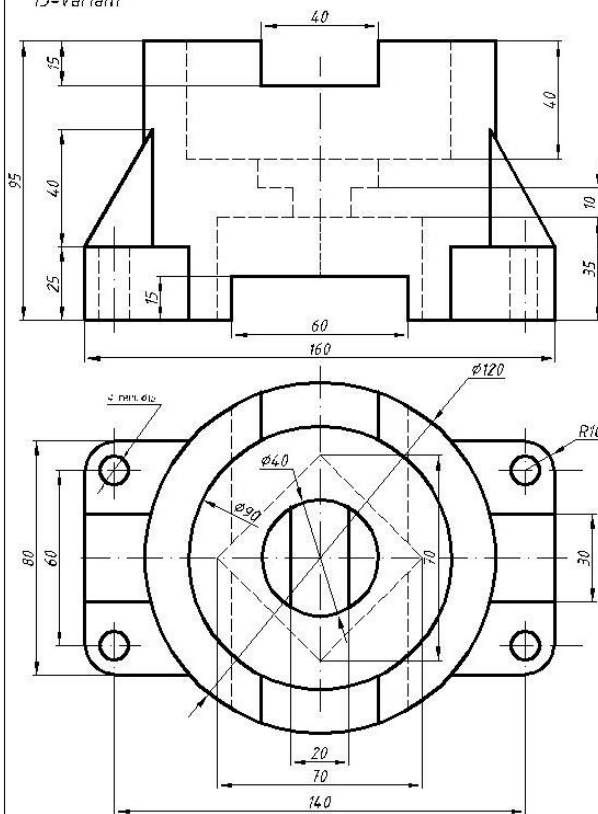
13-variant



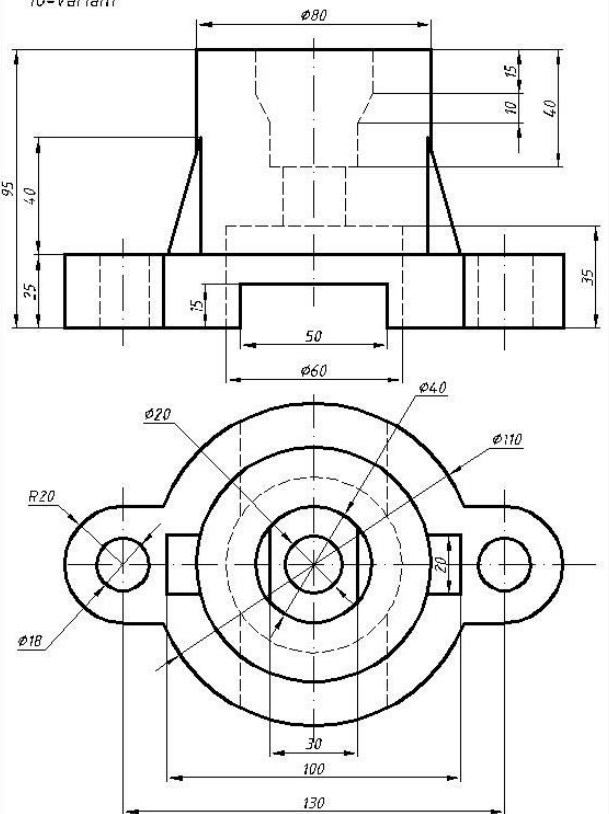
14-variant



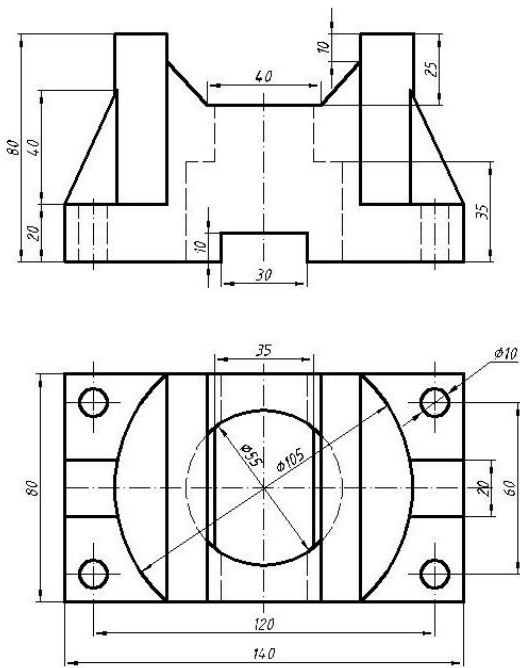
15-variant



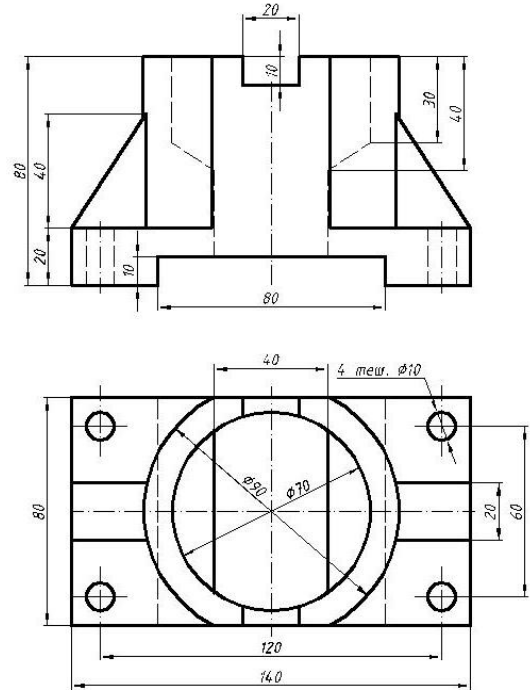
16-variant



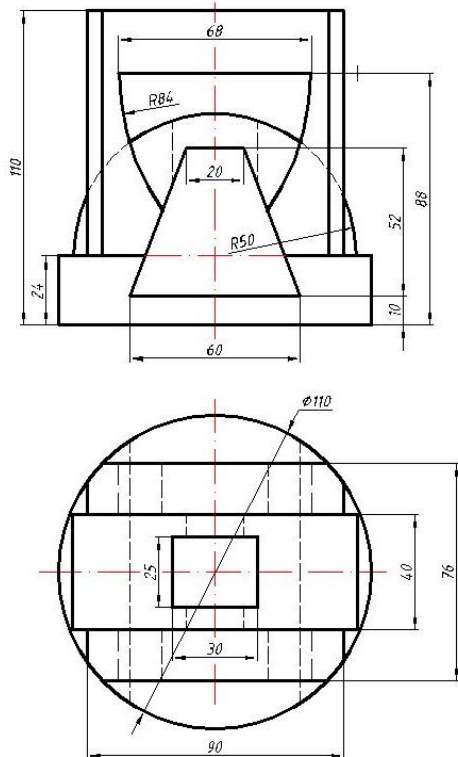
17-variant



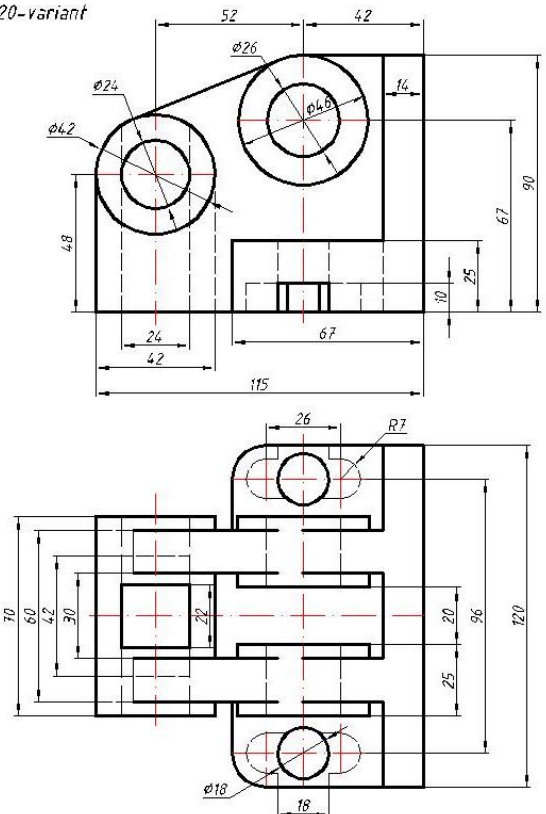
18-variant



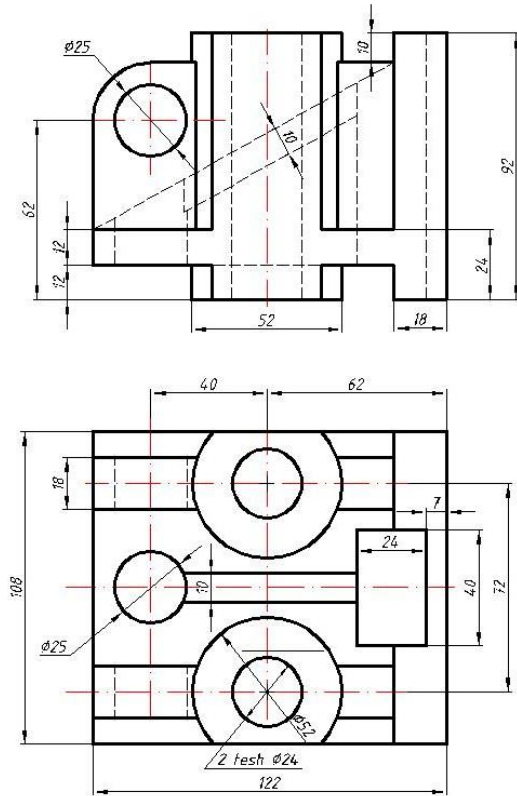
19-variant



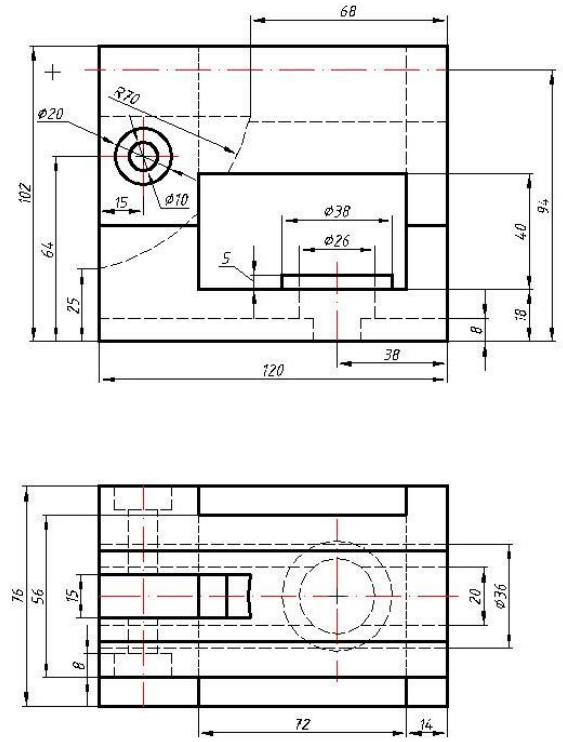
20-variant



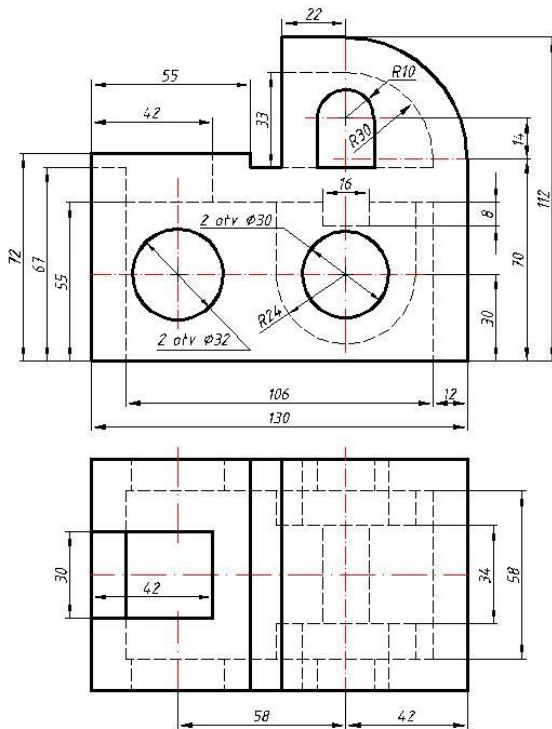
21-variant



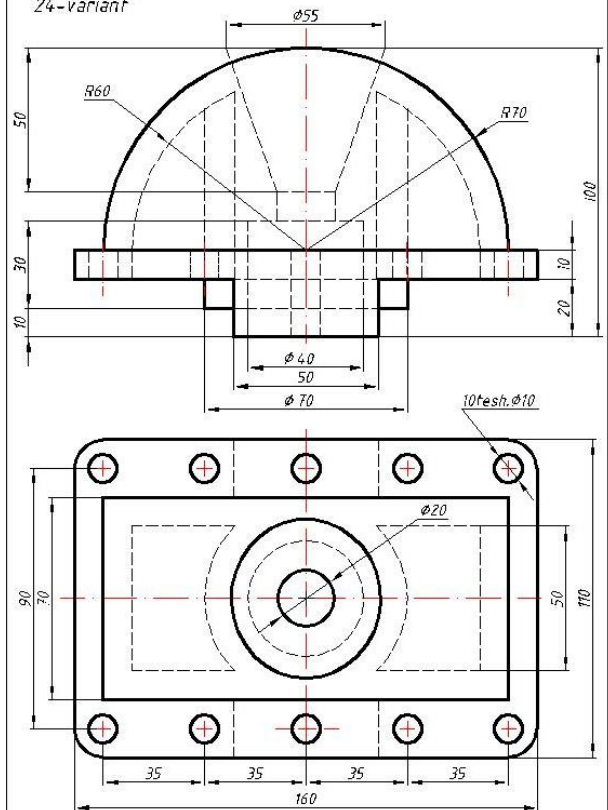
22-variant



23-variant

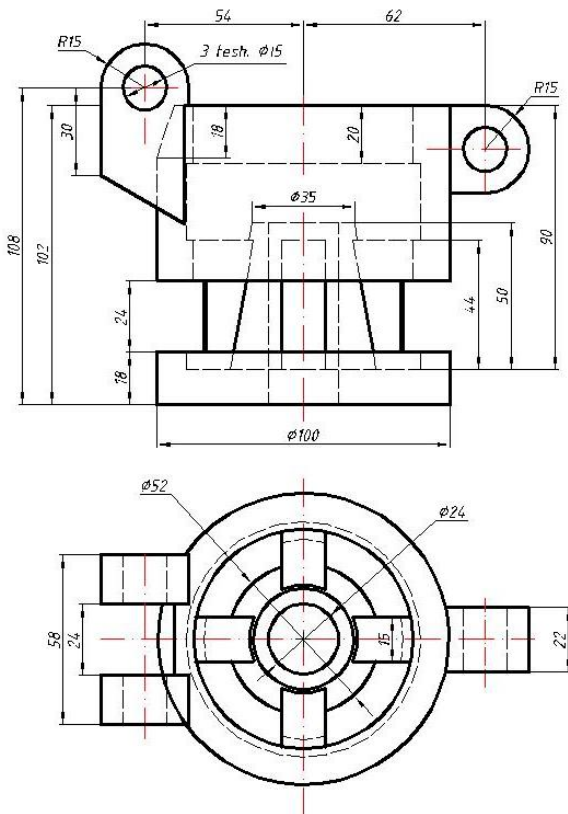


24-variant

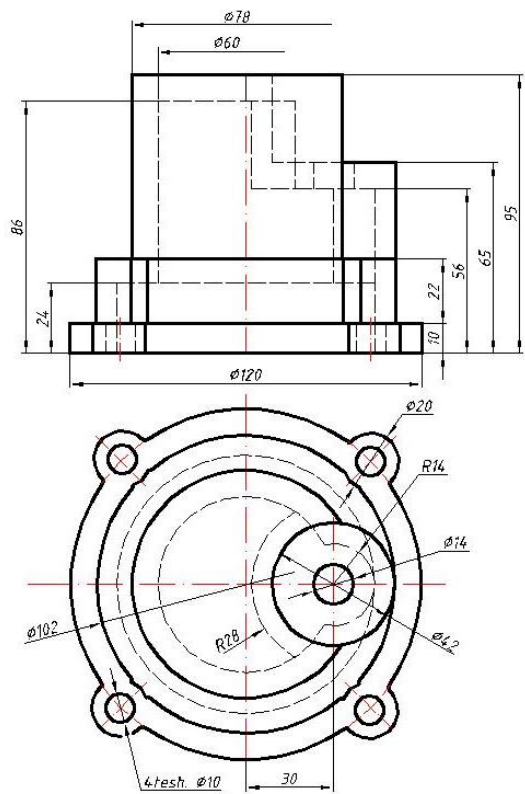




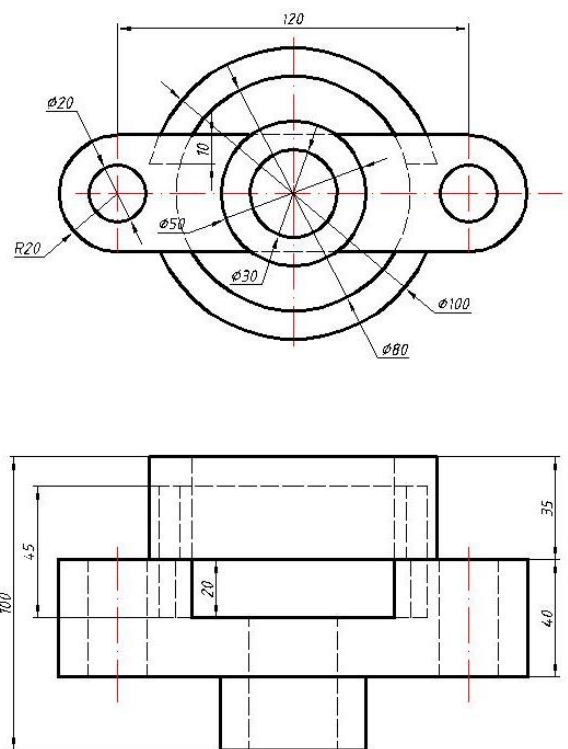
25-variant



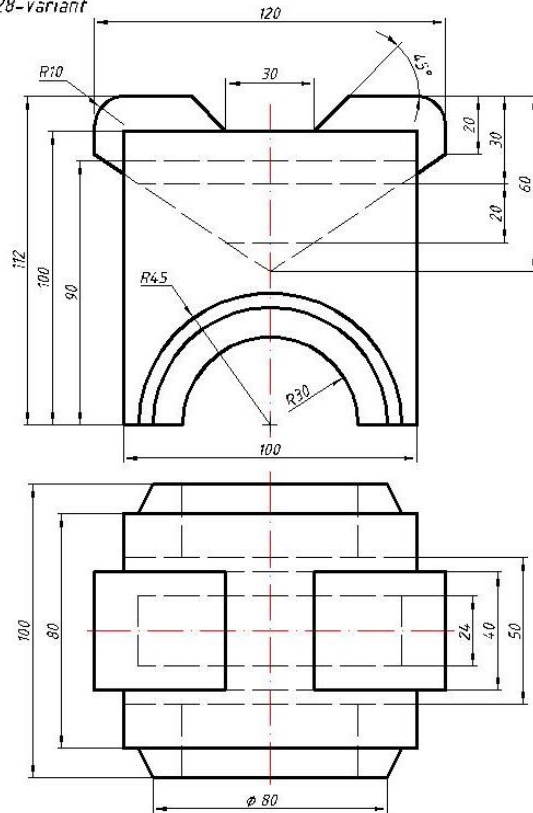
26-variant



27-variant



28-variant





## **7-MASHQ**

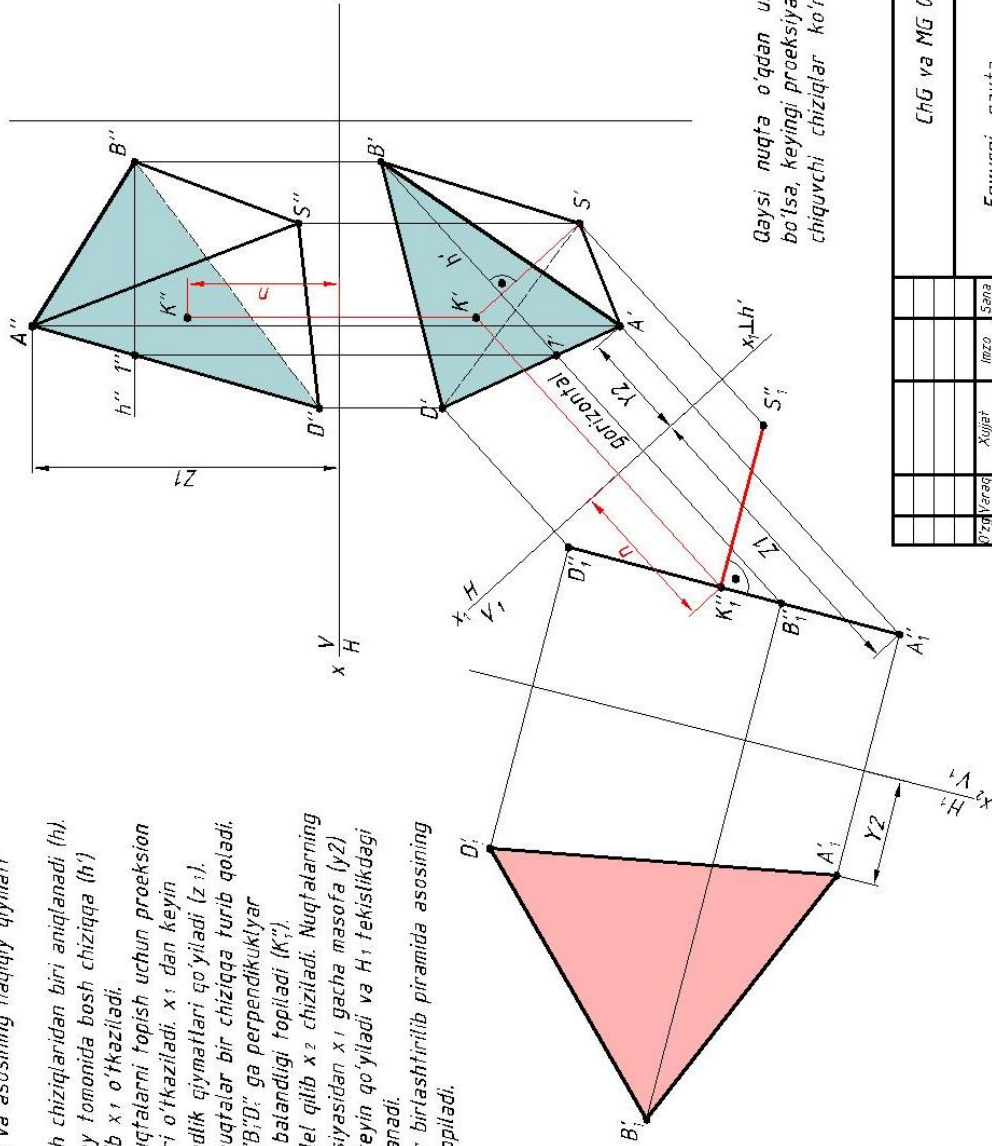
**PROEKSIYA  
TEKISLIKLARINI  
ALMASHTIRISH  
USULI BILAN  
PIRAMIDA  
BALANDLIGI VA  
ASOSINING  
XAQIQIY  
KATTALIGINI ANIQLASH**

**MAVZUSIGA DOIR**

**VARIANTLAR**

№	Mavzu: Proeksiya tekisliklarini almashtirish usuli bilan Piramida balandligi va asosi yuzasining xaqiqiy kattaligini aniqlash.											
	S			A			B			D		
	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
1	20	50	45	10	20	10	55	50	10	80	0	0
2	70	20	20	5	30	60	5	10	20	60	65	30
3	65	15	20	40	25	60	0	5	20	60	60	25
4	75	65	50	40	5	55	0	50	10	65	25	0
5	80	65	50	45	5	55	5	45	10	70	20	0
6	20	45	50	10	10	20	55	10	50	80	60	0
7	70	20	20	45	60	30	5	20	10	60	30	65
8	65	20	15	40	60	25	0	20	5	60	25	60
9	75	50	65	40	55	5	0	20	50	65	0	25
10	80	50	65	45	55	5	5	10	45	70	0	20
11	30	80	25	100	20	0	50	0	80	120	80	50
12	50	0	80	110	20	0	100	80	70	30	90	20
13	75	65	50	45	5	65	5	45	15	70	20	0
14	20	40	50	10	10	20	55	65	50	80	20	0
15	75	25	25	50	65	35	5	45	15	60	55	10
16	65	25	0	40	60	25	0	25	5	60	20	65
17	30	75	70	15	10	25	30	40	5	80	35	40
18	80	55	50	10	45	30	30	80	60	55	0	10
19	75	15	20	45	60	40	10	35	50	20	0	0
20	100	30	70	15	45	30	75	0	25	35	10	55
21	20	50	45	10	20	10	55	50	10	80	0	0
22	70	20	20	5	30	60	5	10	20	60	65	30
23	65	15	20	40	25	60	0	5	20	60	60	25
24	75	65	50	40	5	55	0	50	10	65	25	0
25	80	65	50	45	5	55	5	45	10	70	20	0
26	20	45	50	10	10	20	55	10	50	80	60	0
27	70	20	20	45	60	30	5	20	10	60	30	65
28	65	20	15	40	60	25	0	20	5	60	25	60
29	75	50	65	40	55	5	0	20	50	65	0	25
30	80	50	65	45	55	5	5	10	45	70	0	20

17	X	Y	Z
A	50	68	75
B	10	10	50
D	70	25	5
S	25	60	10



Qaysi nuqta o'qdan uzoqda joylashgan bo'lsa, keyingi proeksiyada shu nuqtadan chiquvchi chiziqlar ko'rinadi va aksincha.

Proeksiya tekisliklarini almashtirish usuli bilan piramida balandligi va asosining haqiqiy qiymati aniqlansin.

1. Tekislikning bosh chiziqlaridan biri aniqlanadi ( $h$ ).
2. Formaning qulay tomonida bosh chiziqqa ( $h'$ ) perpendikulyar qilib  $x_1$  o'tkaziladi.
3.  $v_1$  tekislikda nuqtalarni topish uchun proektsion bog'lanish chiziqlari o'tkaziladi.  $x_1$  dan keyin nuqtalarning balandlik qiymatlari qo'yiladi ( $z_1$ ).
4. Natijada  $A_1''B_1''D_1''$  nuqtalar bir chiziqqa turib qoladi.  $S_1''$  nuqtadan  $A_1''B_1''D_1''$  ga perpendikulyar tushirilib piramida balandligi topiladi ( $K_1''$ ).
5.  $A_1''B_1''D_1''$  ga parallel qilib  $x_2$  chiziladi. Nuqtalarning gorizontal proyeksiyasidan  $x_1$  gacha masofa ( $y_2$ ) o'lchanib  $x_2$  dan keyin qo'yiladi va  $H_1$  tekislikdagi proyeksiyasi aniqlanadi.
6.  $A_1'B_1'D_1'$  nuqtalar birtashitirilib piramida asosining haqiqiy kattaligi topiladi.

ChG va MG 01.17.01	
Lirera	Massab
Massa	1:1
Uz. V. 1	V. 1
Uz. V. 2	V. 2
Uz. V. 3	V. 3
Uz. V. 4	V. 4
Uz. V. 5	V. 5
Uz. V. 6	V. 6
Uz. V. 7	V. 7
Uz. V. 8	V. 8
Uz. V. 9	V. 9
Uz. V. 10	V. 10
Uz. V. 11	V. 11
Uz. V. 12	V. 12
Uz. V. 13	V. 13
Uz. V. 14	V. 14
Uz. V. 15	V. 15
Uz. V. 16	V. 16
Uz. V. 17	V. 17
Uz. V. 18	V. 18
Uz. V. 19	V. 19
Uz. V. 20	V. 20
Uz. V. 21	V. 21
Uz. V. 22	V. 22
Uz. V. 23	V. 23
Uz. V. 24	V. 24
Uz. V. 25	V. 25
Uz. V. 26	V. 26
Uz. V. 27	V. 27
Uz. V. 28	V. 28
Uz. V. 29	V. 29
Uz. V. 30	V. 30
Uz. V. 31	V. 31
Uz. V. 32	V. 32
Uz. V. 33	V. 33
Uz. V. 34	V. 34
Uz. V. 35	V. 35
Uz. V. 36	V. 36
Uz. V. 37	V. 37
Uz. V. 38	V. 38
Uz. V. 39	V. 39
Uz. V. 40	V. 40
Uz. V. 41	V. 41
Uz. V. 42	V. 42
Uz. V. 43	V. 43
Uz. V. 44	V. 44
Uz. V. 45	V. 45
Uz. V. 46	V. 46
Uz. V. 47	V. 47
Uz. V. 48	V. 48
Uz. V. 49	V. 49
Uz. V. 50	V. 50
Uz. V. 51	V. 51
Uz. V. 52	V. 52
Uz. V. 53	V. 53
Uz. V. 54	V. 54
Uz. V. 55	V. 55
Uz. V. 56	V. 56
Uz. V. 57	V. 57
Uz. V. 58	V. 58
Uz. V. 59	V. 59
Uz. V. 60	V. 60
Uz. V. 61	V. 61
Uz. V. 62	V. 62
Uz. V. 63	V. 63
Uz. V. 64	V. 64
Uz. V. 65	V. 65
Uz. V. 66	V. 66
Uz. V. 67	V. 67
Uz. V. 68	V. 68
Uz. V. 69	V. 69
Uz. V. 70	V. 70
Uz. V. 71	V. 71
Uz. V. 72	V. 72
Uz. V. 73	V. 73
Uz. V. 74	V. 74
Uz. V. 75	V. 75
Uz. V. 76	V. 76
Uz. V. 77	V. 77
Uz. V. 78	V. 78
Uz. V. 79	V. 79
Uz. V. 80	V. 80
Uz. V. 81	V. 81
Uz. V. 82	V. 82
Uz. V. 83	V. 83
Uz. V. 84	V. 84
Uz. V. 85	V. 85
Uz. V. 86	V. 86
Uz. V. 87	V. 87
Uz. V. 88	V. 88
Uz. V. 89	V. 89
Uz. V. 90	V. 90
Uz. V. 91	V. 91
Uz. V. 92	V. 92
Uz. V. 93	V. 93
Uz. V. 94	V. 94
Uz. V. 95	V. 95
Uz. V. 96	V. 96
Uz. V. 97	V. 97
Uz. V. 98	V. 98
Uz. V. 99	V. 99
Uz. V. 100	V. 100

ChG va MG kafedrası  
IGTIQ va UF 1-3

**8-MASHQ**

**TEKISLIKNING BOSH**

**CHIZIQLARIDAN**

**BIRI ATROFIDA**

**AYLANTIRISH**

**USULI BILAN**

**UNING**

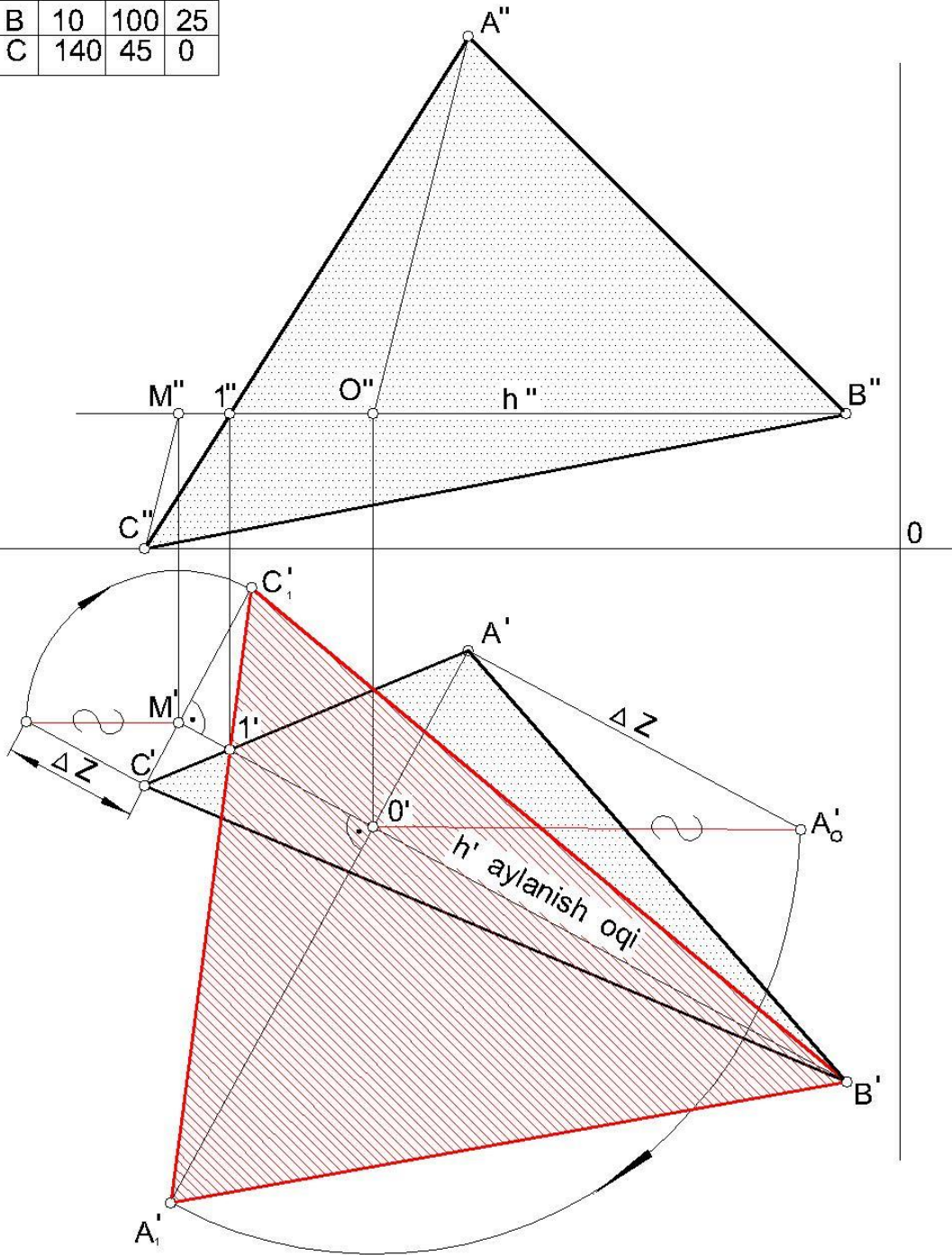
**XAQIQIY**

**KATTALIGINI ANIQLASH**

**MAVZUSIGA DOIR**

**VARIANTLAR**

	X	Y	Z
A	80	20	95
B	10	100	25
C	140	45	0



Usta	Vasif	X. J. et	Insoq	SS-98					
Grub	D. Umarov								
Ishtirok	U. Anvar, A.								
Aylantirish usuli						L. top	U. top	U. top	1:1
"ChG va MG" kafedrası						Vasif	Vasif		
						IGTIQ va UF 101			

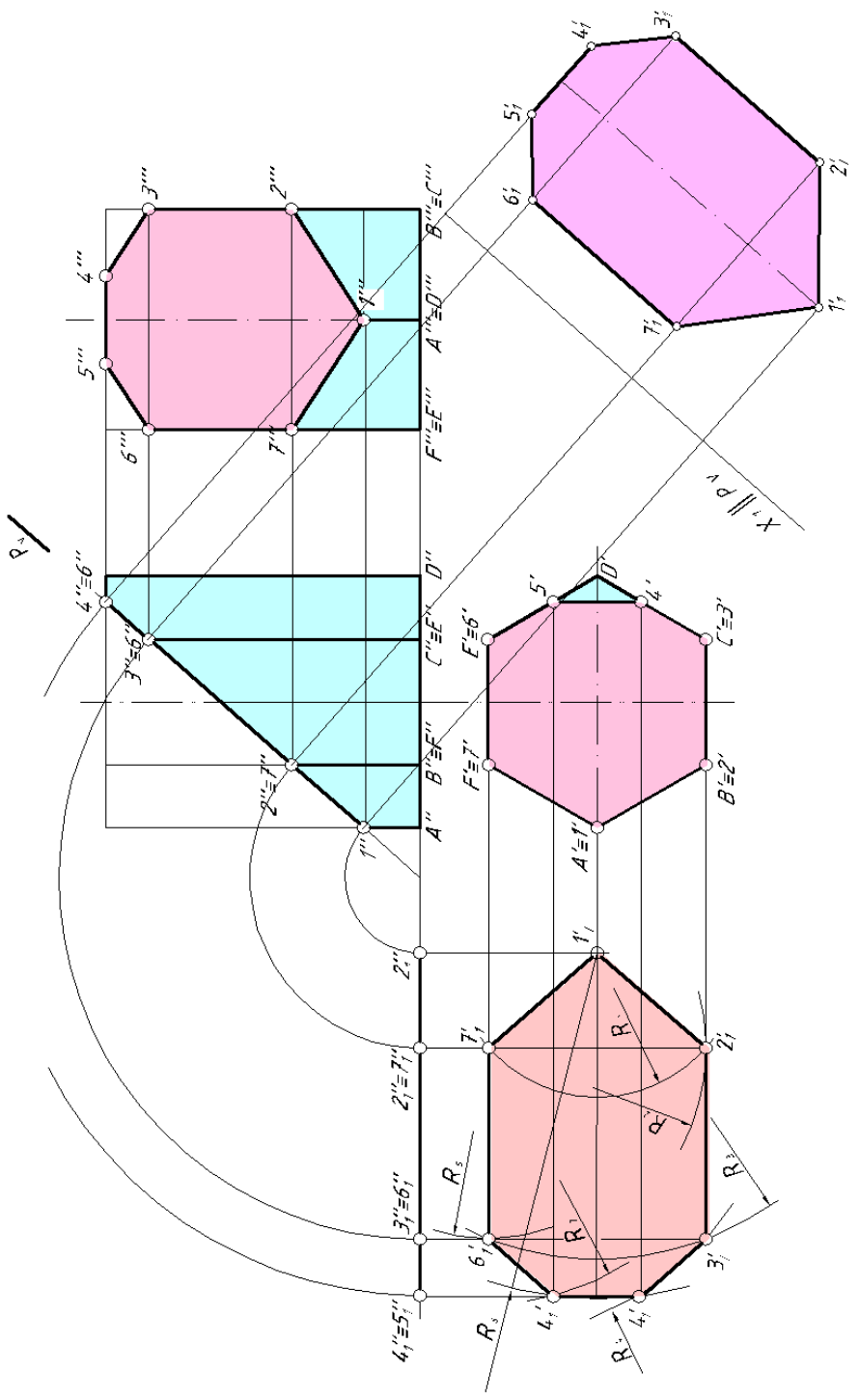
№	Mavzu: AYLANTIRISH USULI BILAN UCHBURCHAKNING XAQIQIY KATTALIGINI ANIQLASH								
	A			B			C		
	X	Y	Z	X	Y	Z	X	Y	Z
1	105	40	10	70	10	85	15	60	55
2	0	100	30	100	50	10	60	0	100
3	135	50	20	20	85	60	80	5	105
4	0	80	70	60	10	120	140	25	10
5	10	85	70	125	50	15	65	15	110
6	20	50	15	65	90	105	120	5	60
7	130	45	10	45	10	55	95	0	95
8	125	20	80	65	95	135	30	60	30
9	120	30	20	60	5	115	5	85	60
10	25	40	25	80	90	115	135	10	80
11	120	65	10	70	10	100	20	85	55
12	120	5	70	60	95	115	25	30	15
13	25	70	50	115	50	5	75	5	75
14	100	45	10	60	15	85	15	70	60
15	100	35	15	50	5	80	0	75	40
16	110	10	40	50	90	90	10	45	15
17	20	90	60	75	15	105	125	50	30
18	10	35	10	60	75	95	115	5	55
19	100	40	10	60	10	85	10	70	55
20	70	0	90	105	50	10	20	80	55
21	25	35	120	85	95	15	100	15	55
22	40	0	100	100	40	0	10	90	10
23	50	95	0	10	85	70	125	0	15
24	50	90	95	10	45	15	110	10	45
25	60	50	115	110	40	15	10	0	75
26	10	40	15	40	80	100	110	10	60
27	60	10	95	10	80	60	110	50	15
28	115	15	55	45	75	95	10	35	5
29	60	70	80	115	10	45	15	25	10
30	100	40	5	70	5	90	10	60	65

# **9-MASHQ**

## **SIRTLARNI PROEKSIYALOVCHI TEKISLIK BILAN KESISHUVI VA KESIM YUZASINING XAQIQIY KATTALIGINI ANIQLASH**

**MAVZUSIGA DOIR**

**VARIANTLAR**



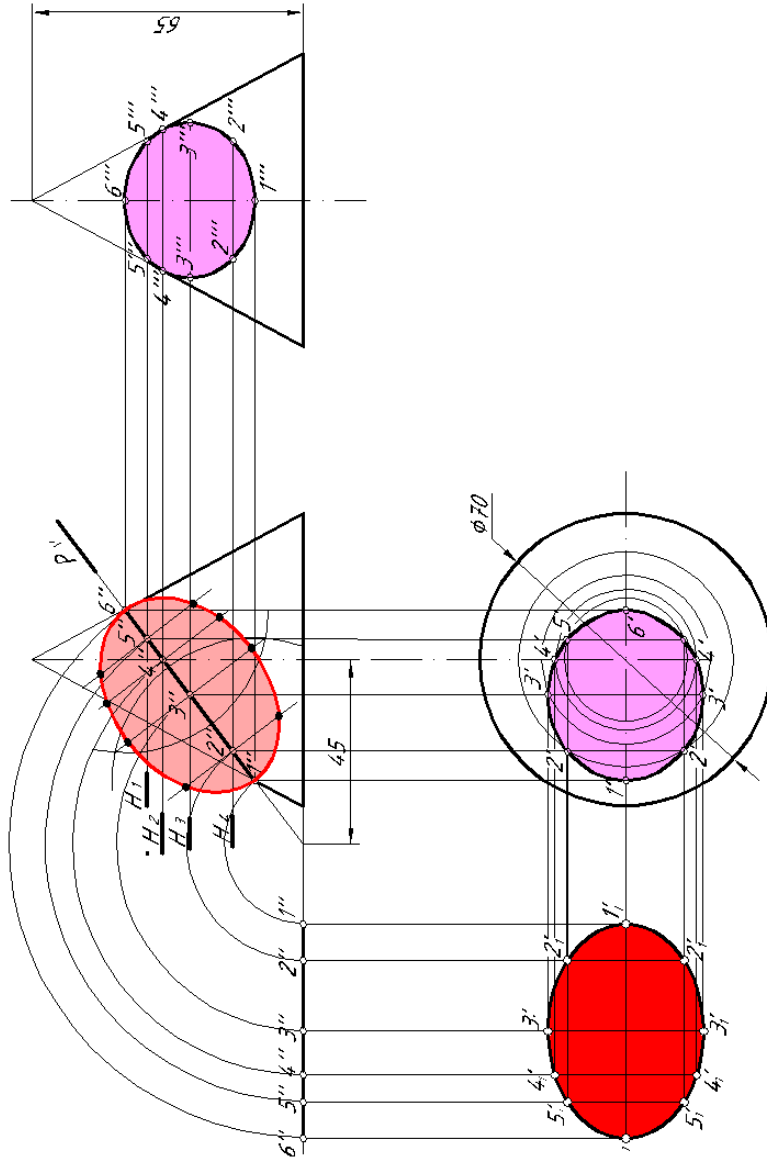
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Chizdi:		Dochilova M			
Tekshtirdi:		Unshayev A			
				Verab №	Verablar 6
				Mabslatlab	
				Litena	Massa
				1:1	
				IGTIQ 1/3	

ChG.01.09.0

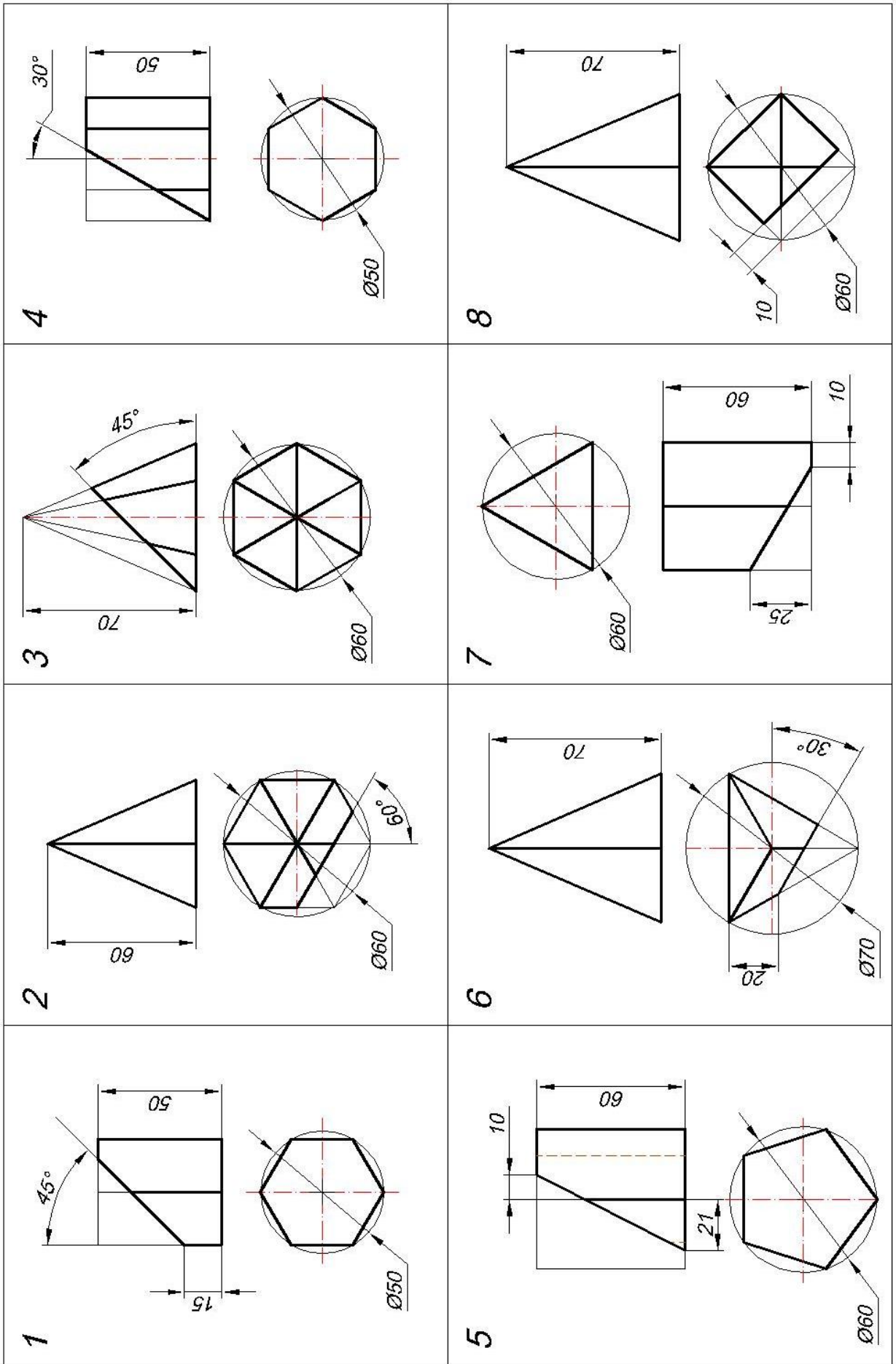
SIRTNI PROEKSİYALOVCHI  
TENZILIK-BILAN KESISHUVI  
KESIM YUZASI KATTALIGI

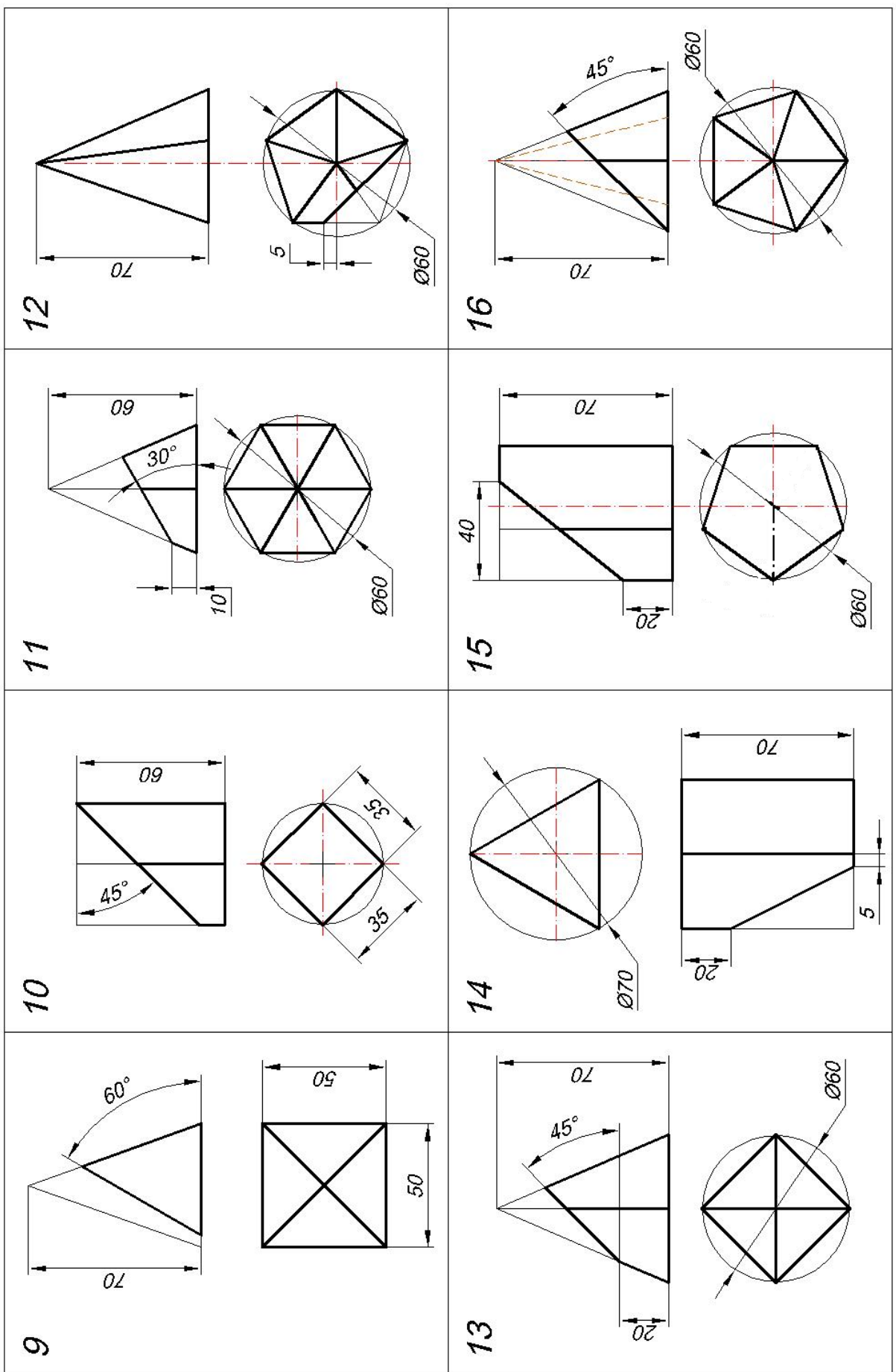
"ChG va MG" kafedrası

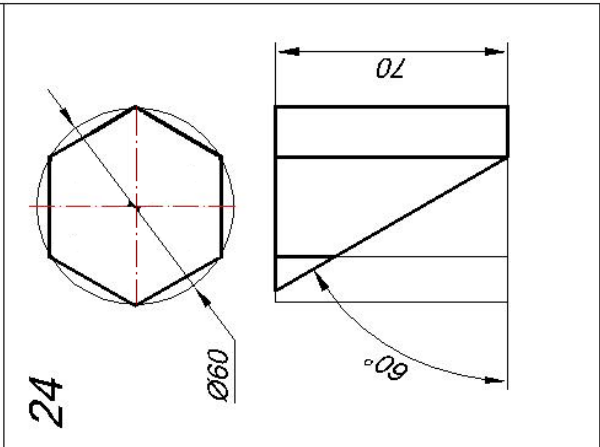
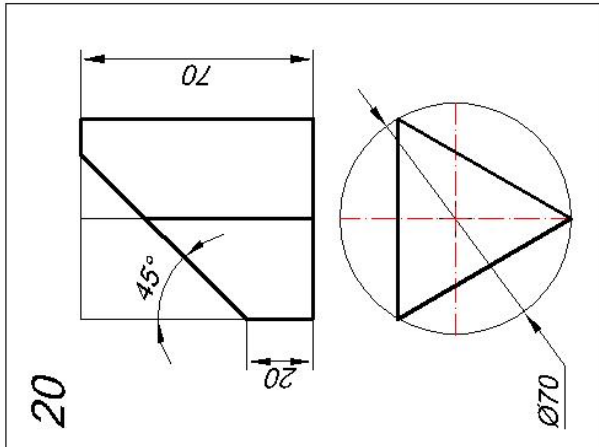
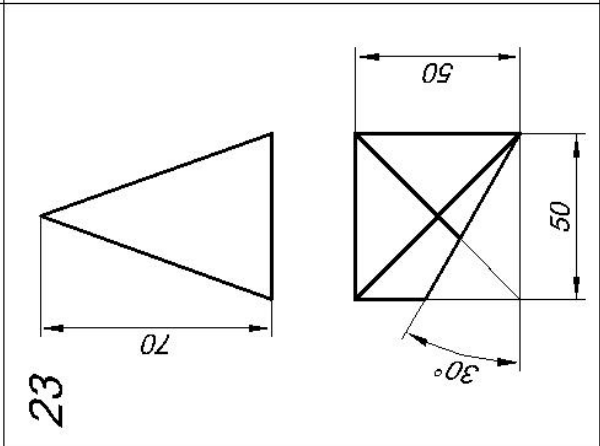
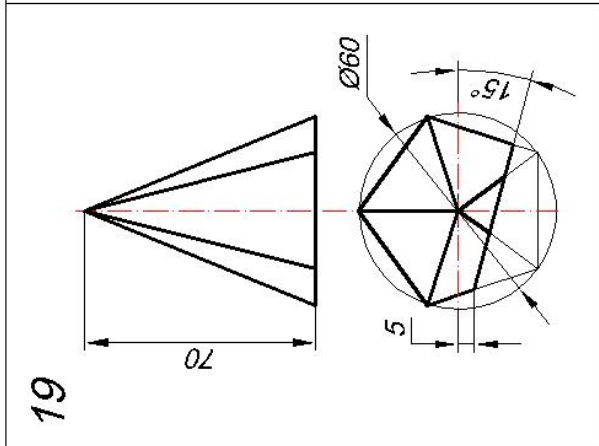
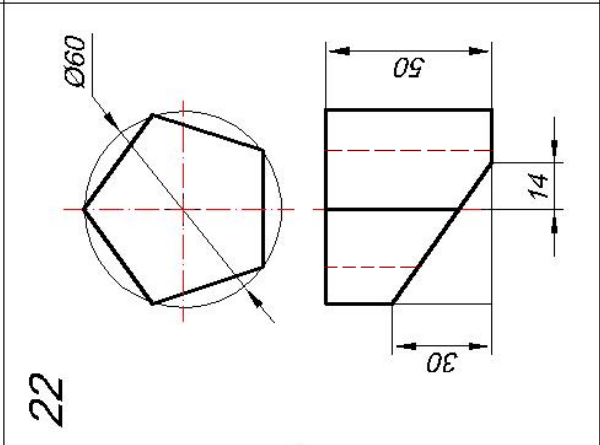
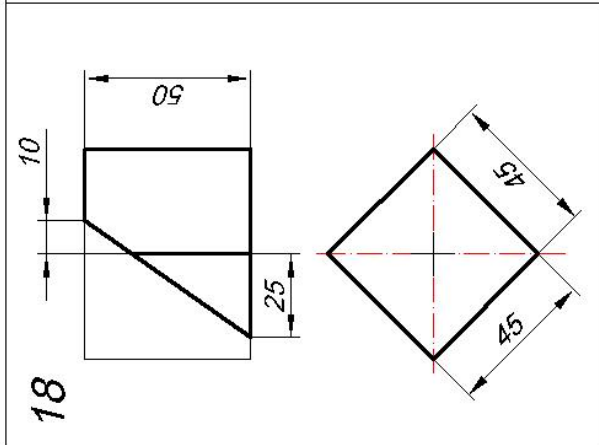
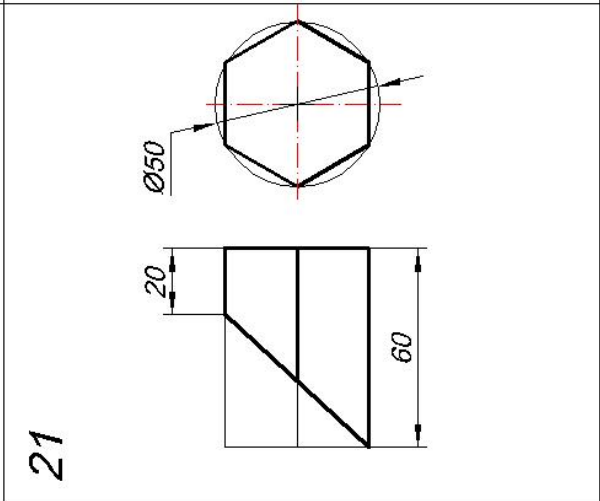
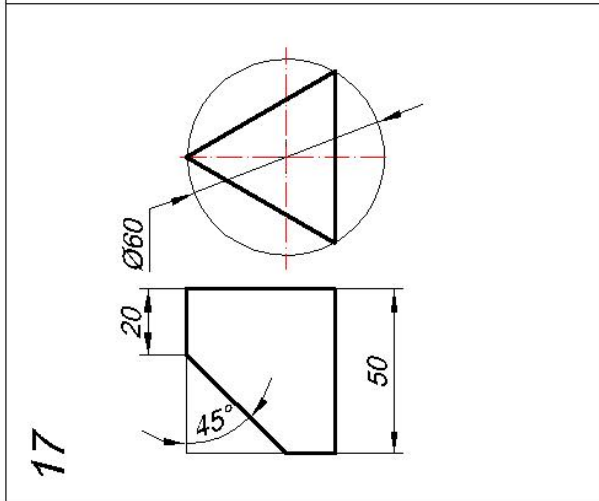




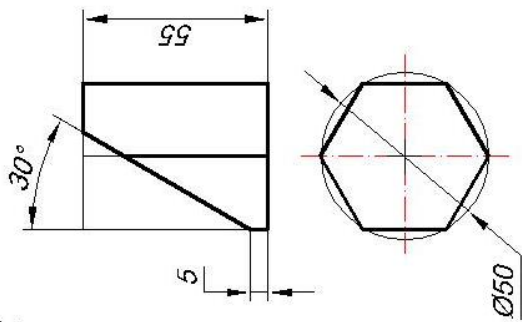
Uzq. Varad.		Xujjat	Imzo	Sana
Ehzi: _____		Qchilova M	_____	_____
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Lifera		Mabasa	Mashtab	
				1:1
Varad. №		Varad. №	Varad. №	6
ChG.01.09.0				IGTIQ 1/3
SIRTNI PROEKSİYALOVCHI TENSLIK BILAN KESISHUVI KESIM YUZASI KATTALIGI				"ChG va MG" kafedrası



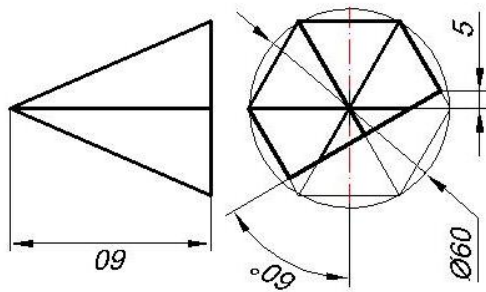




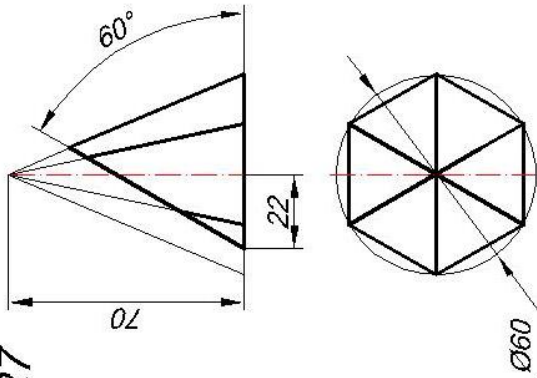
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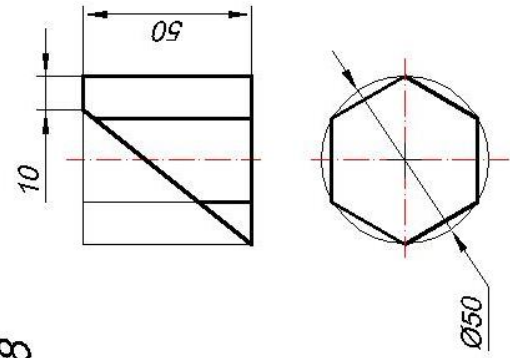
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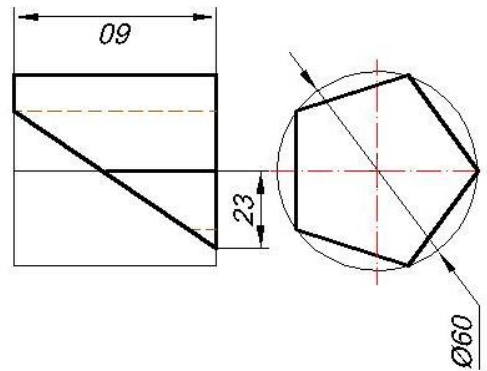
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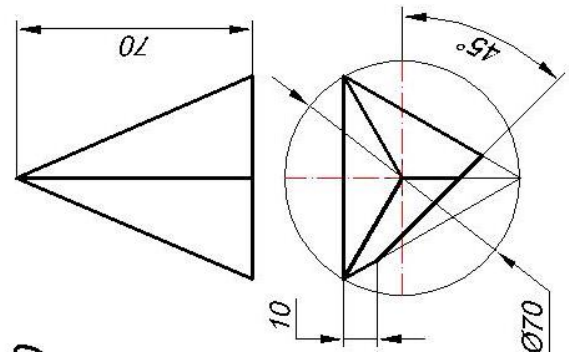
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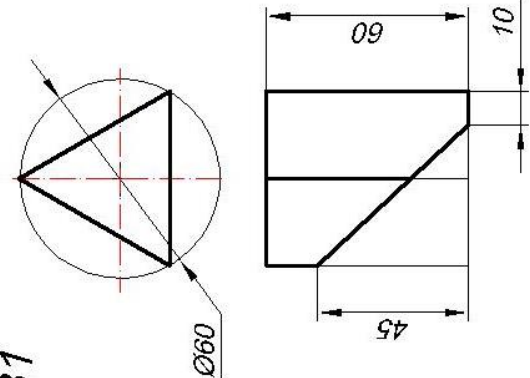
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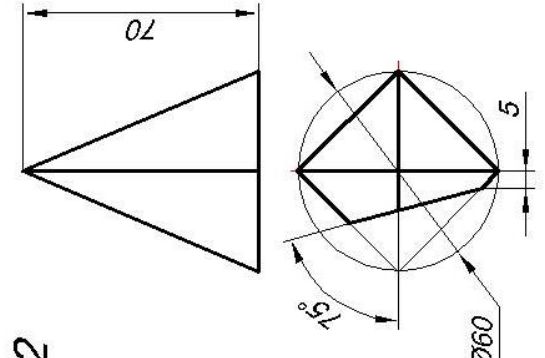
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31



32



**10-MASHQ**

**KO'PYOQLIKLARDA**

**OCHIQ TESHİK**

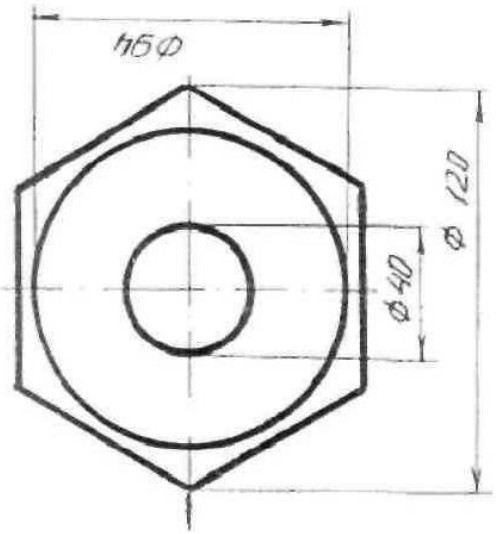
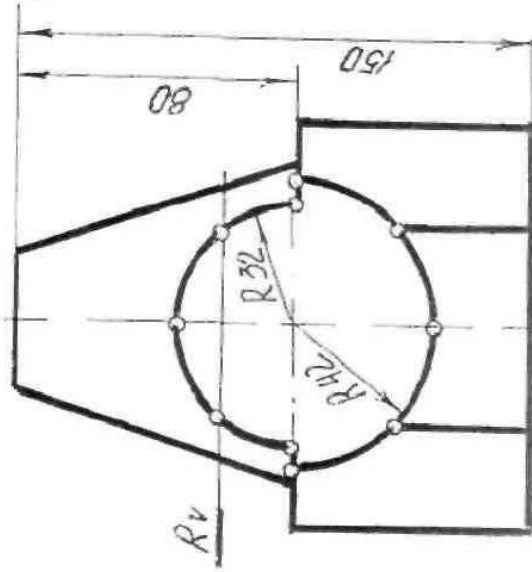
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**YASASH**

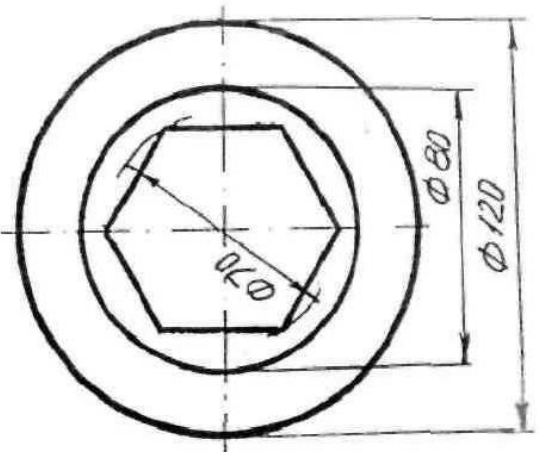
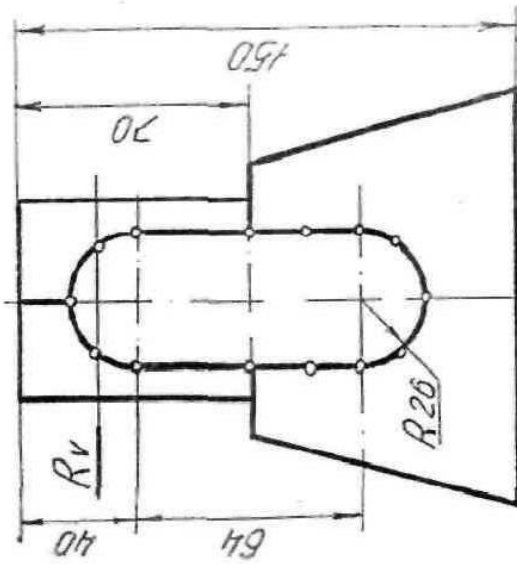
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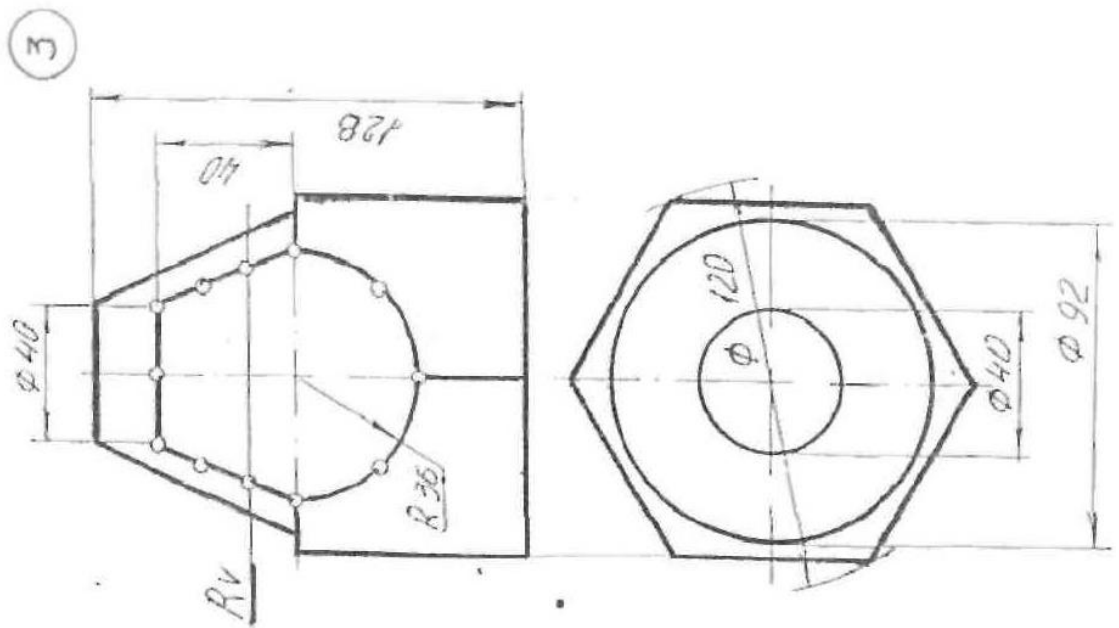
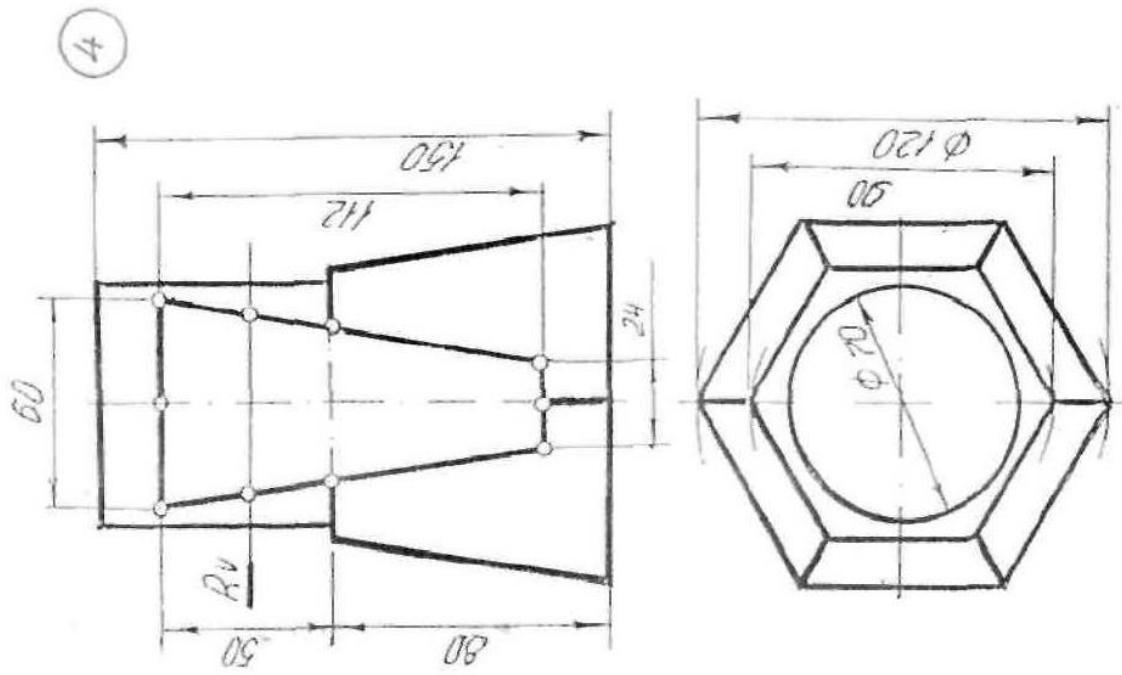
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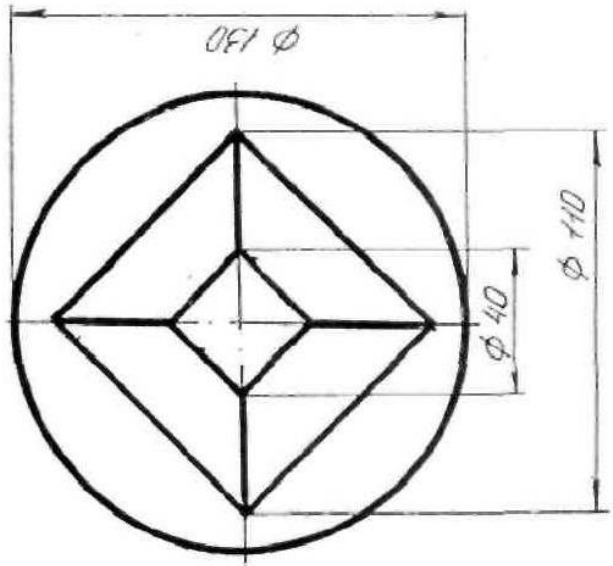
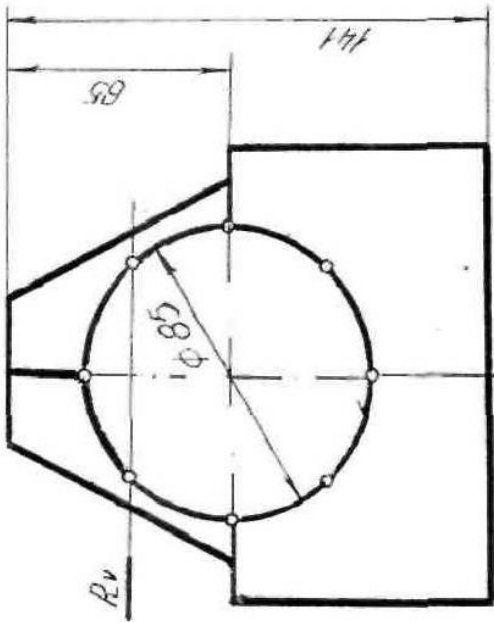
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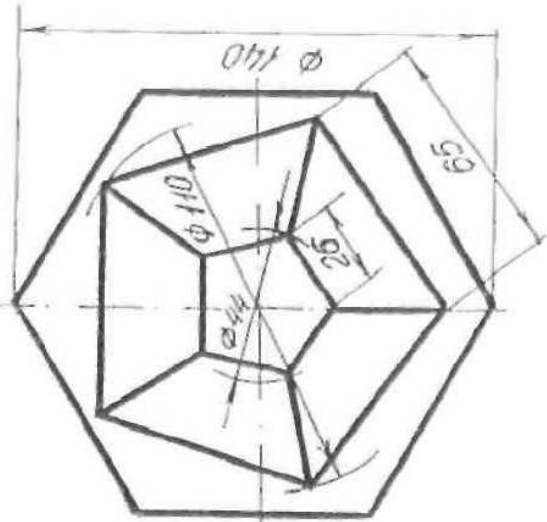
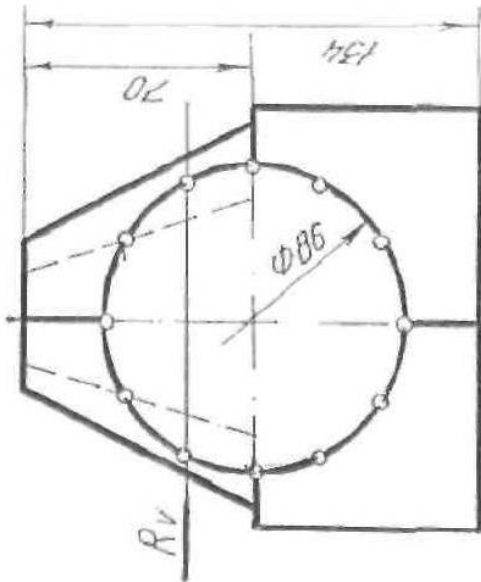




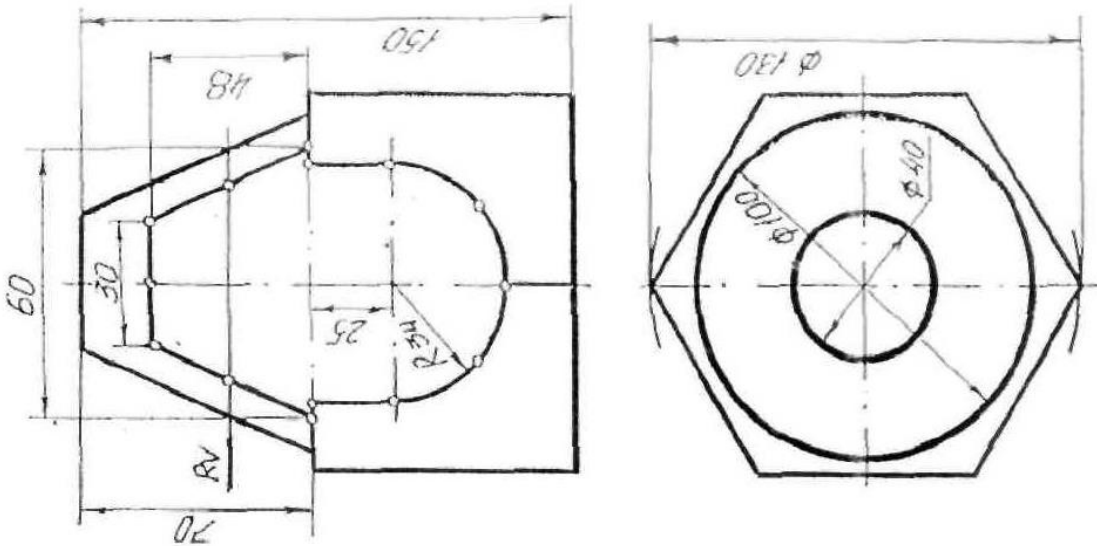
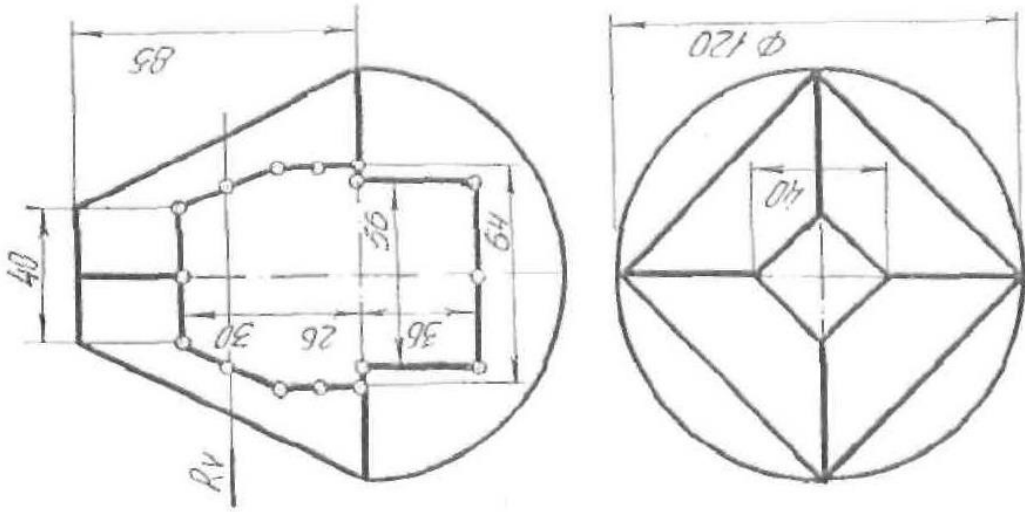
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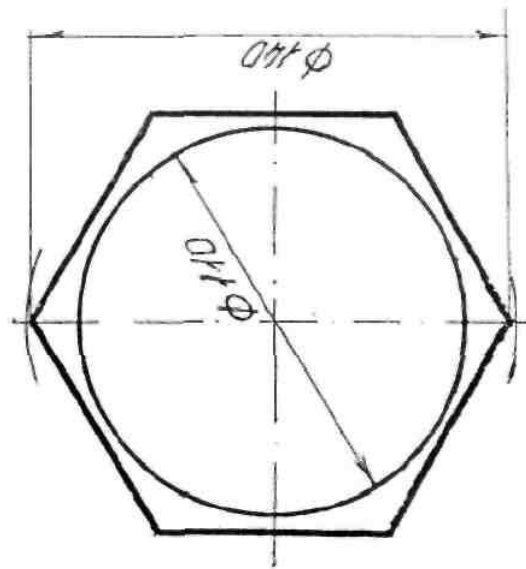
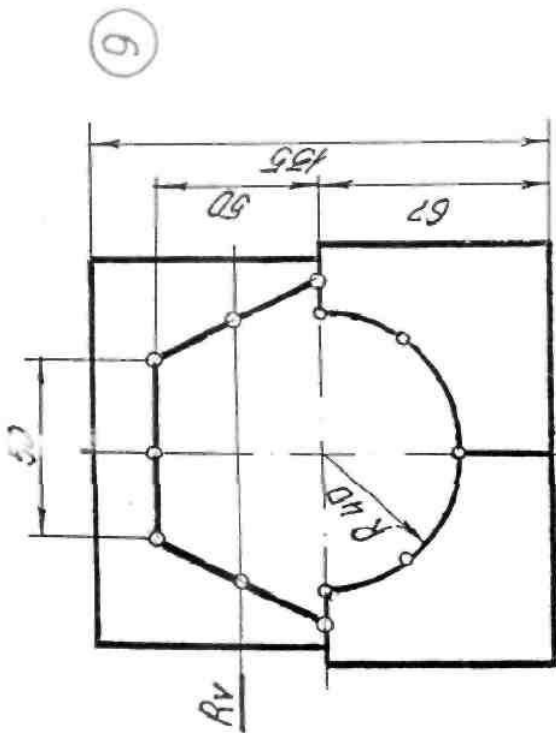
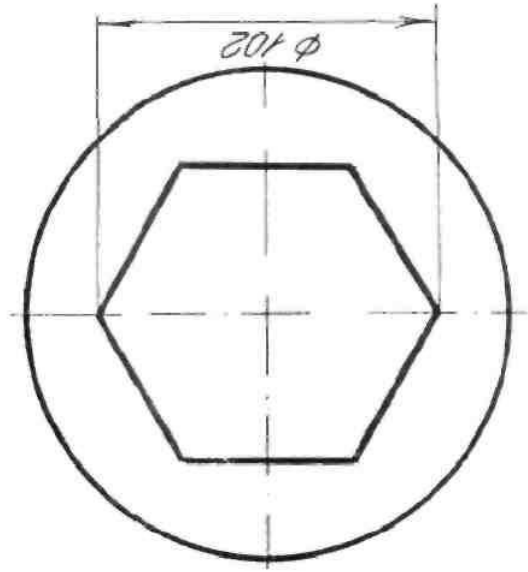
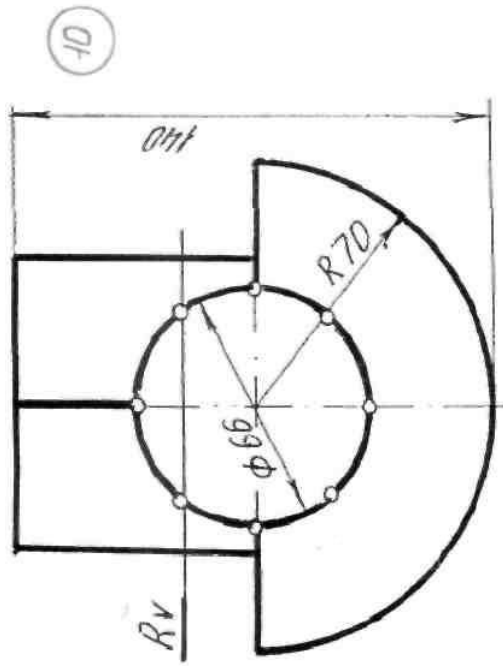
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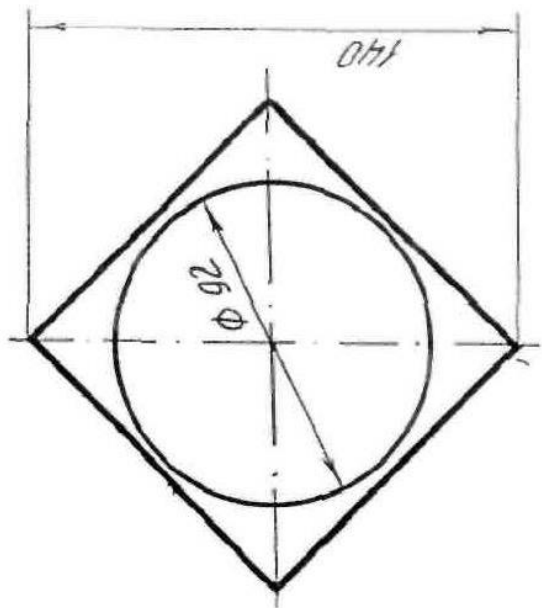
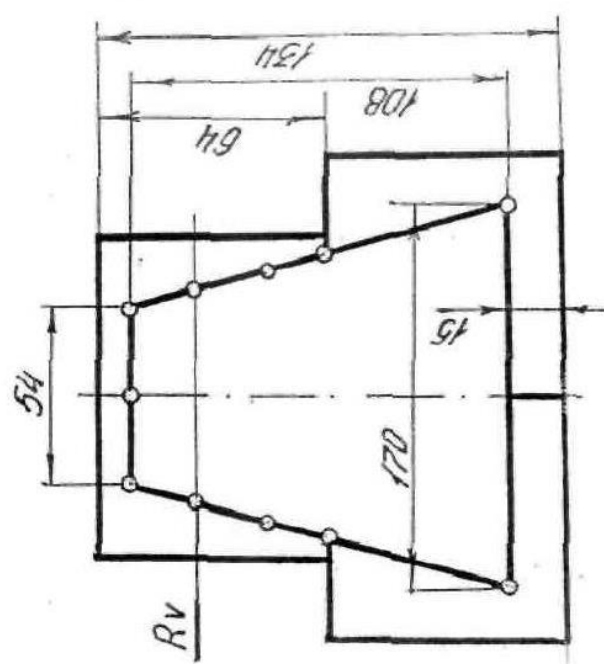
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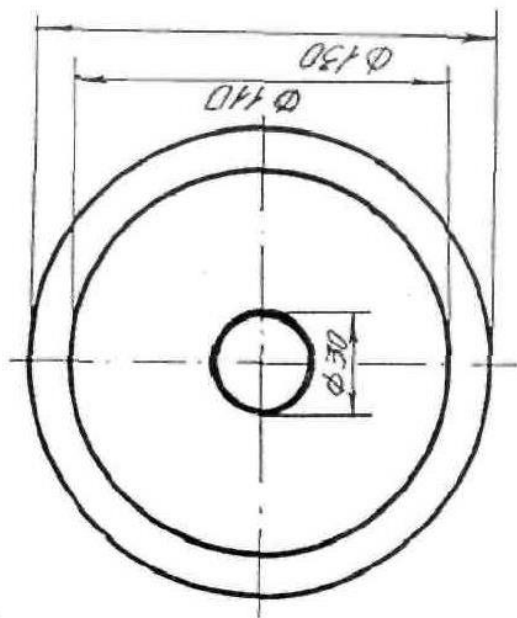
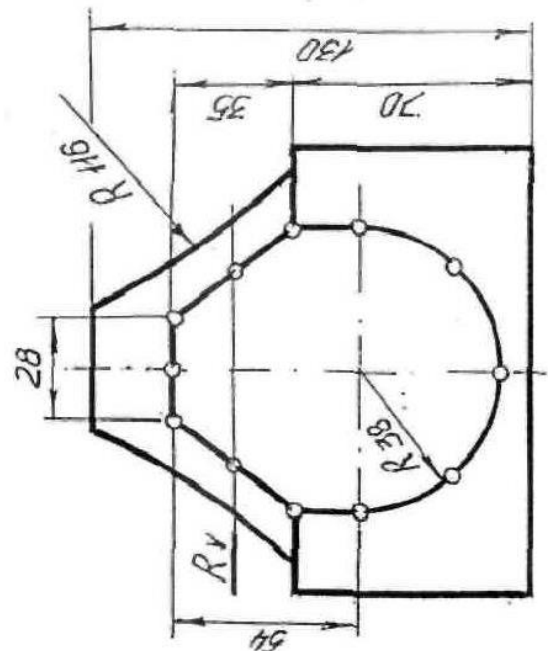
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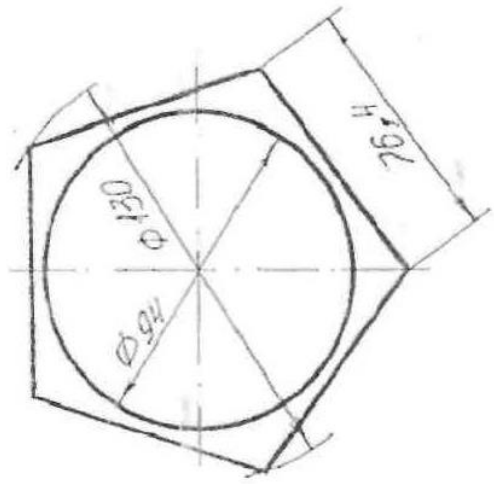
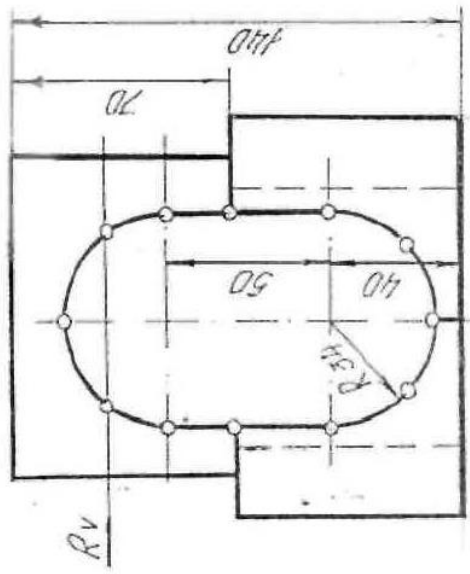
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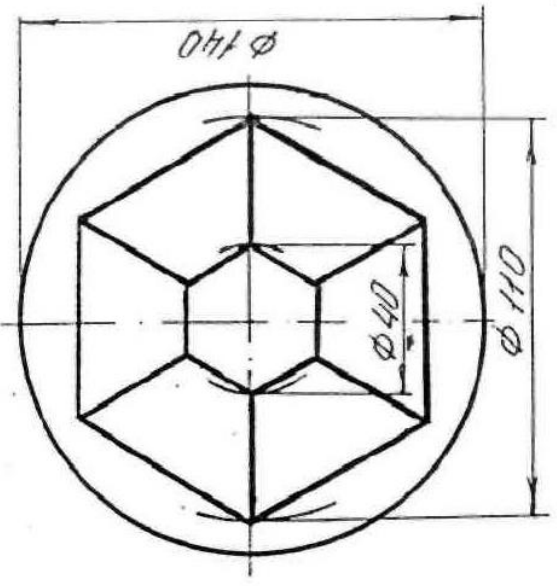
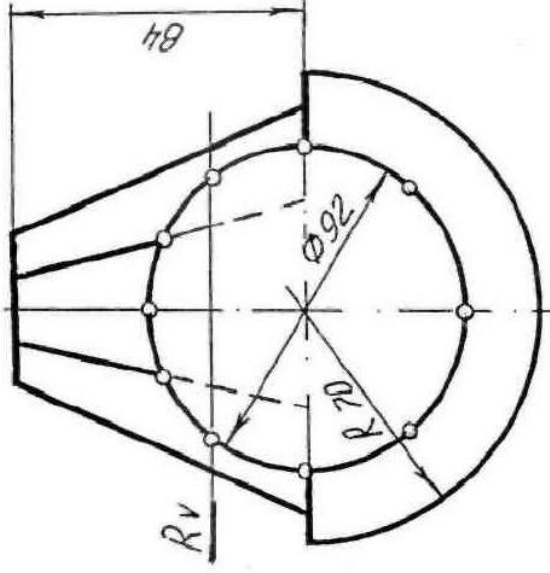
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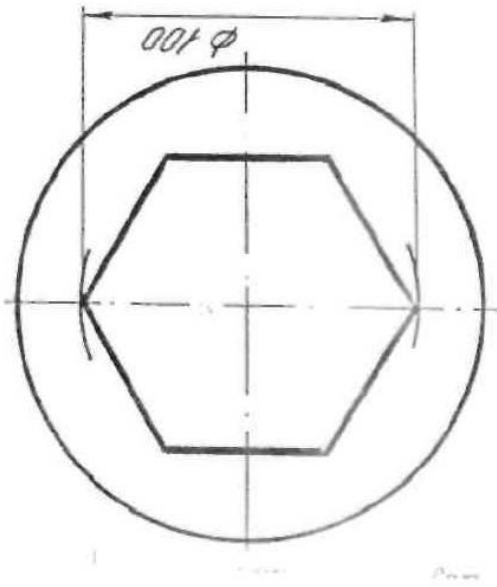
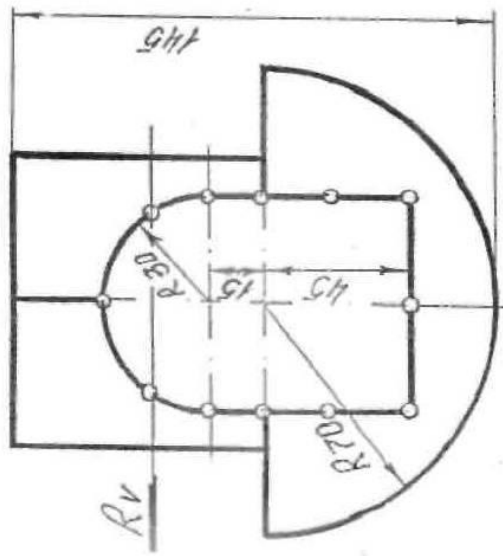
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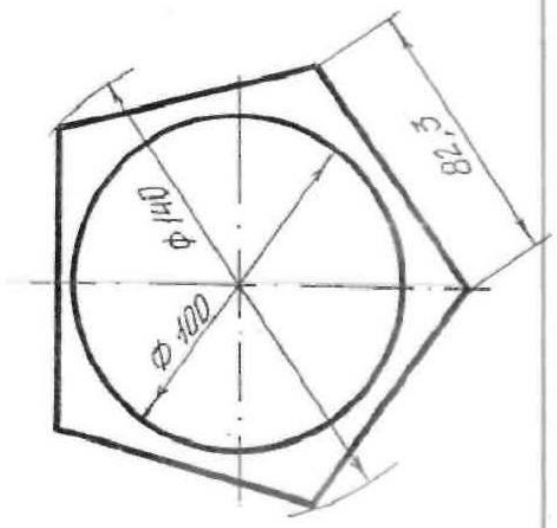
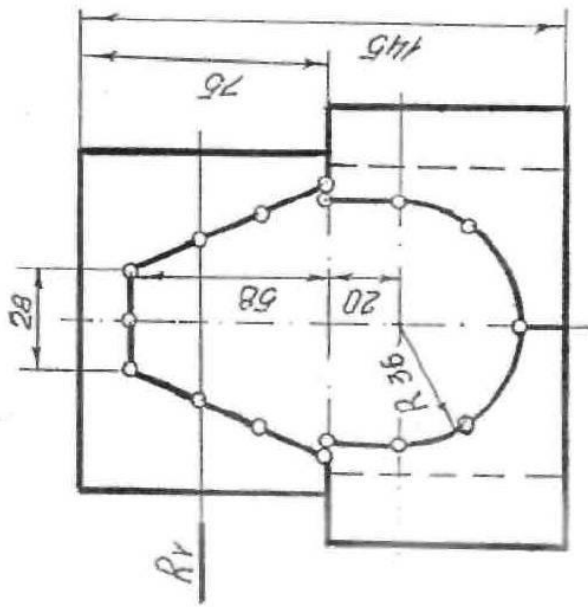
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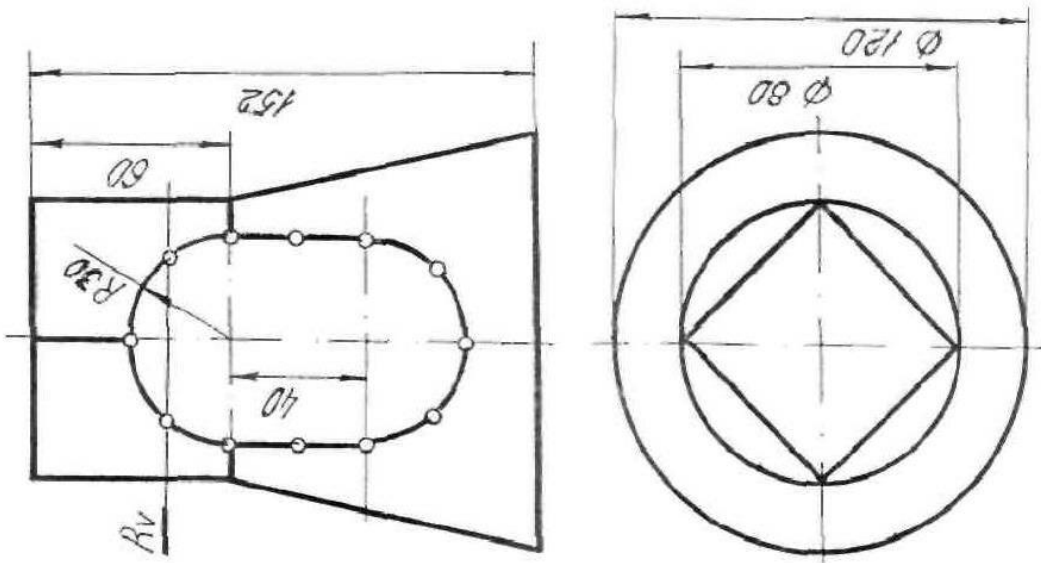


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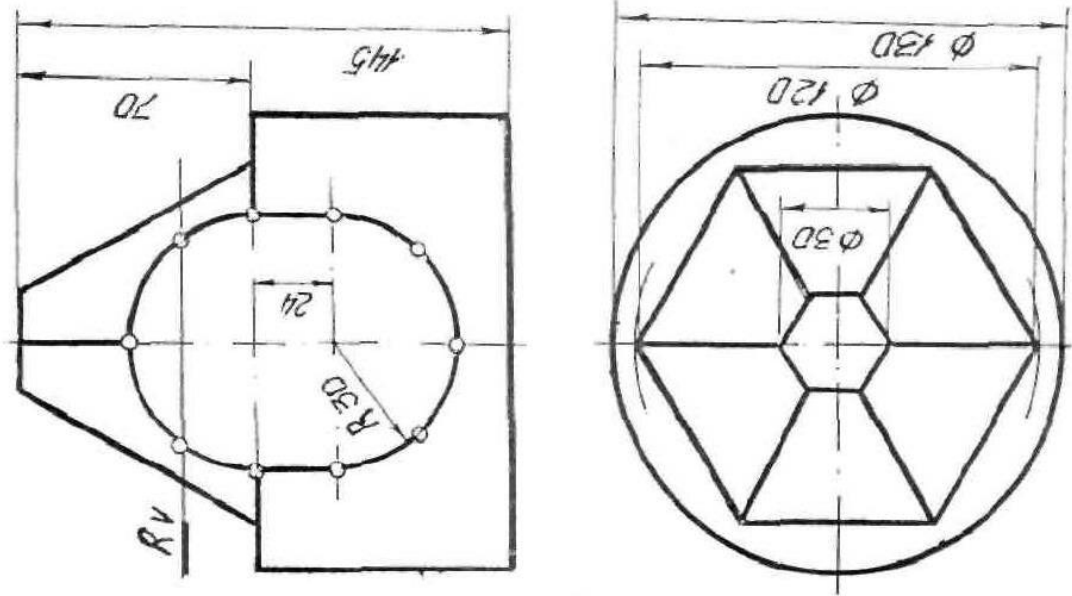


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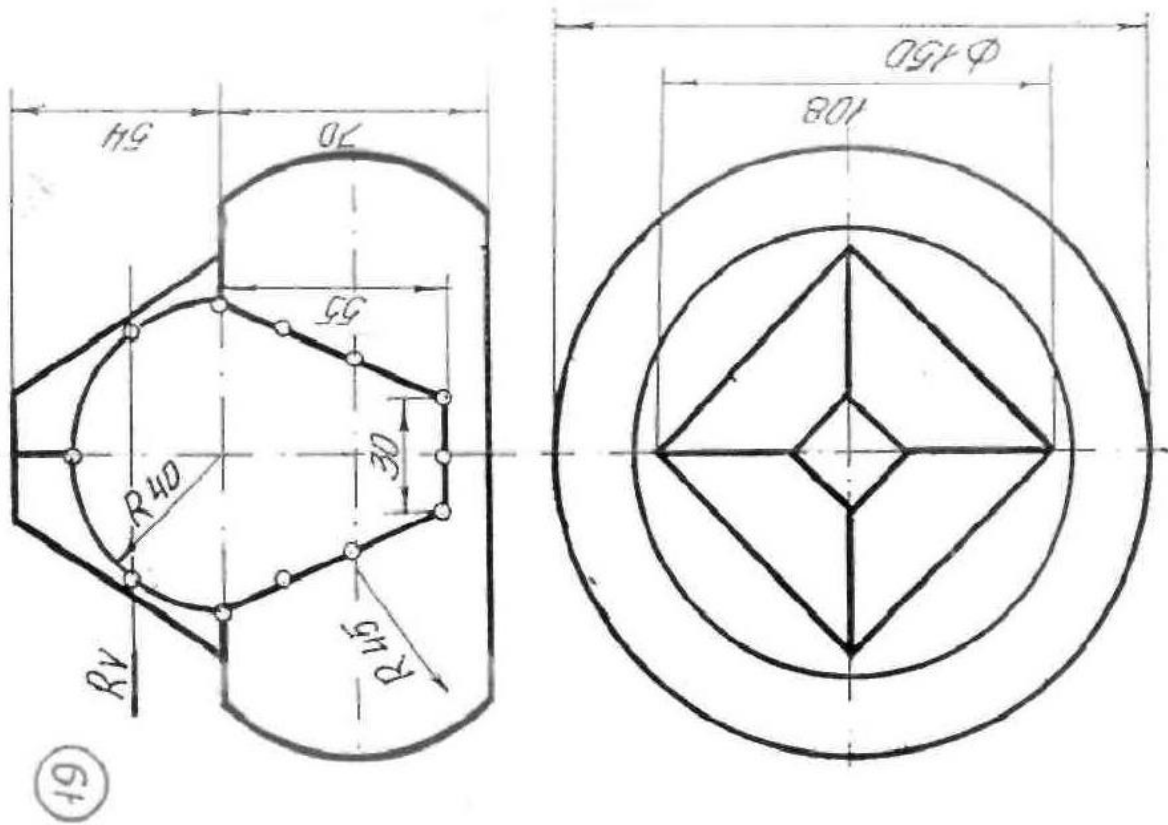
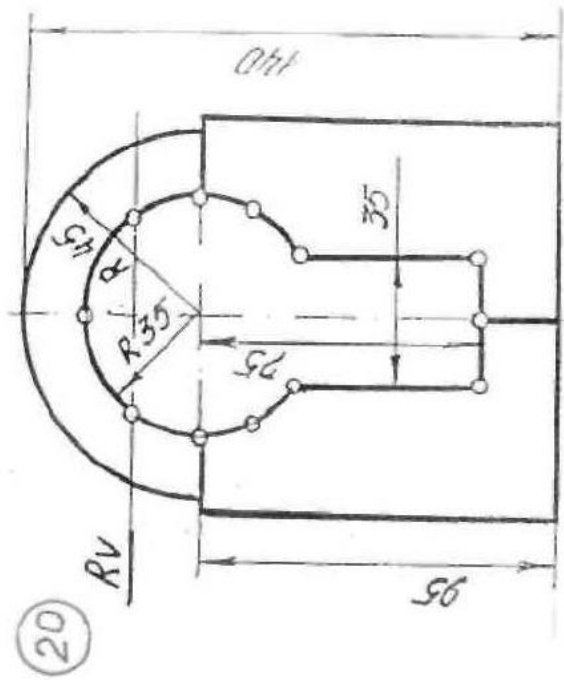




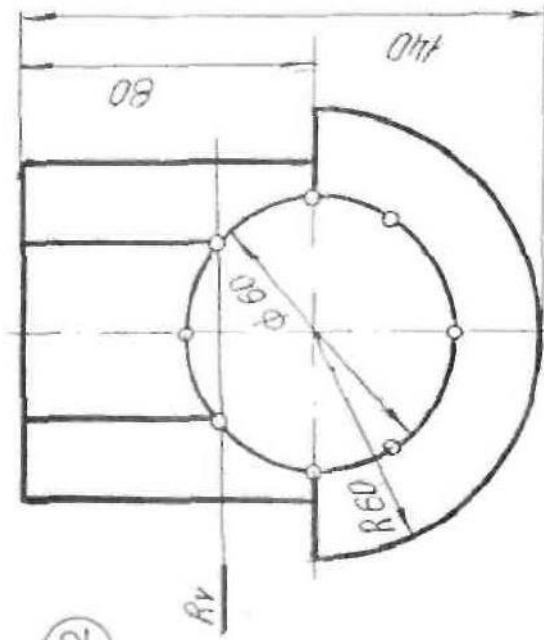
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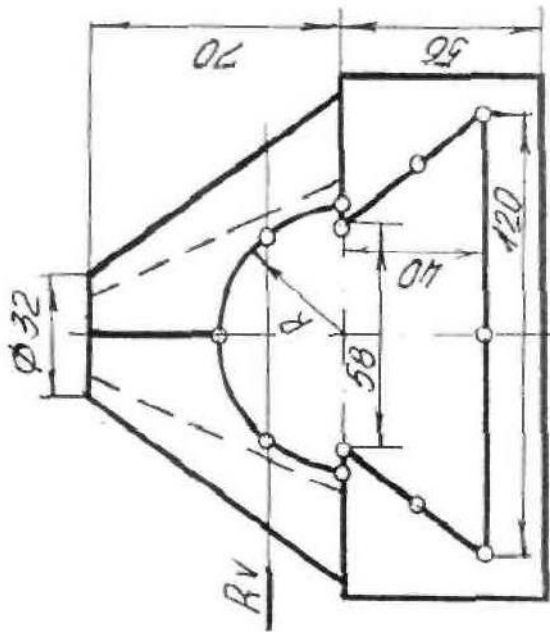
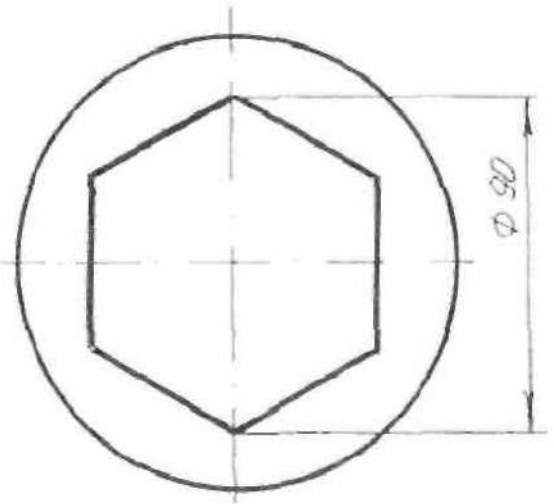
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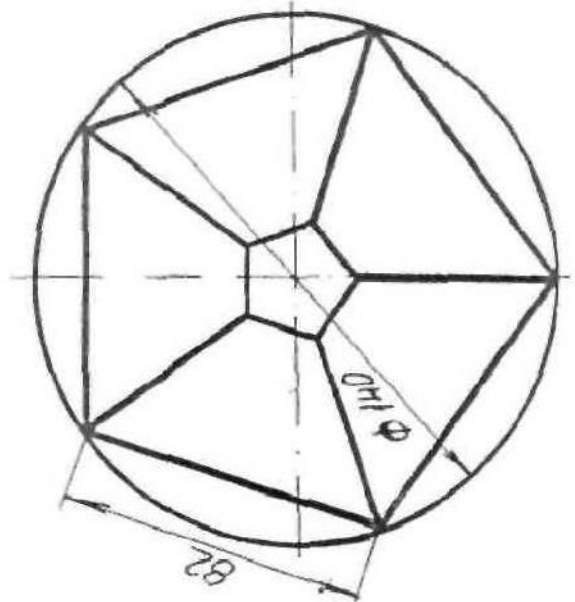


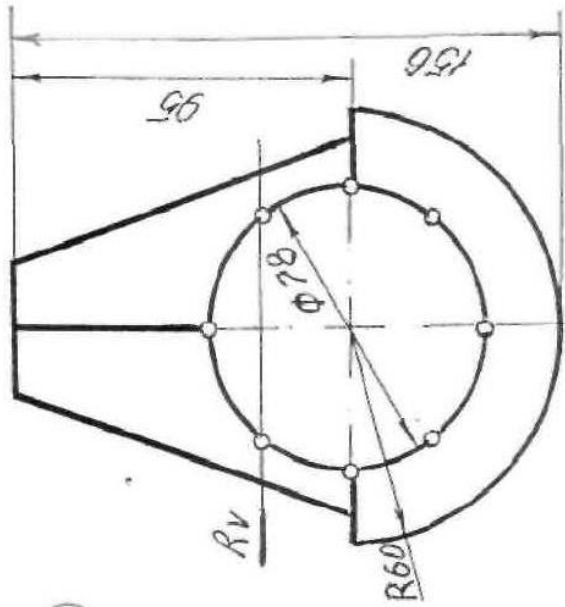


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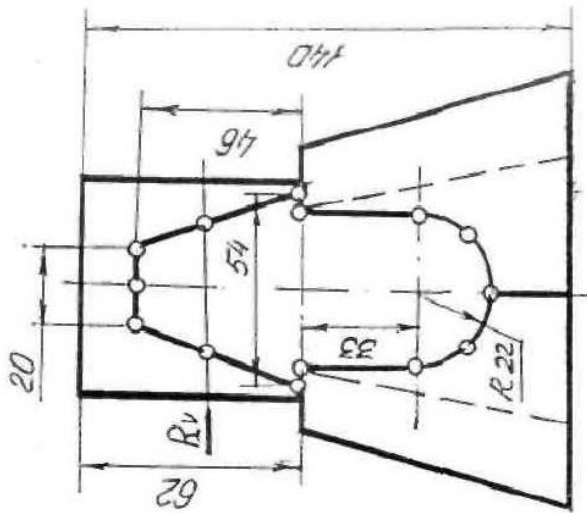
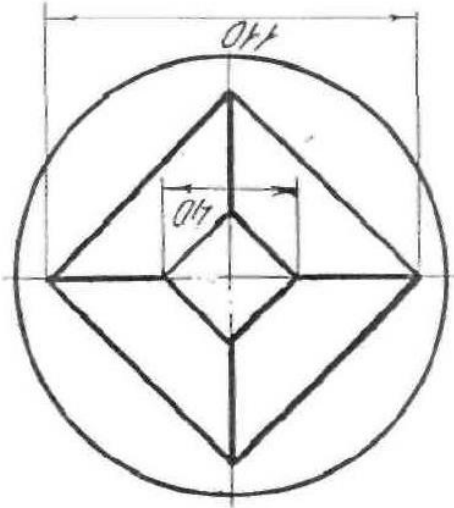


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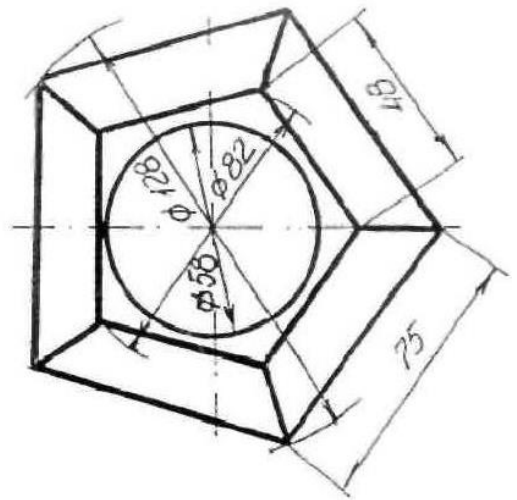


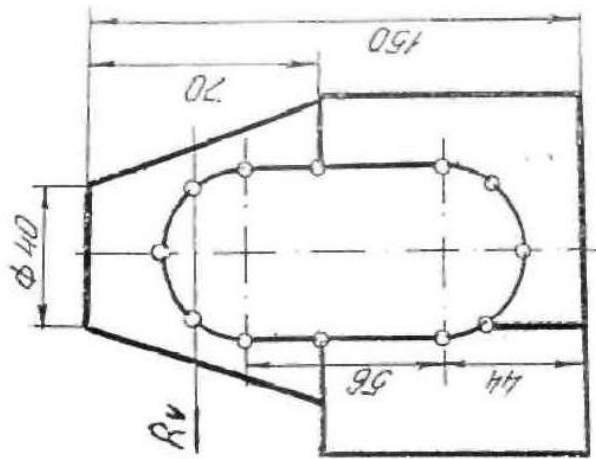


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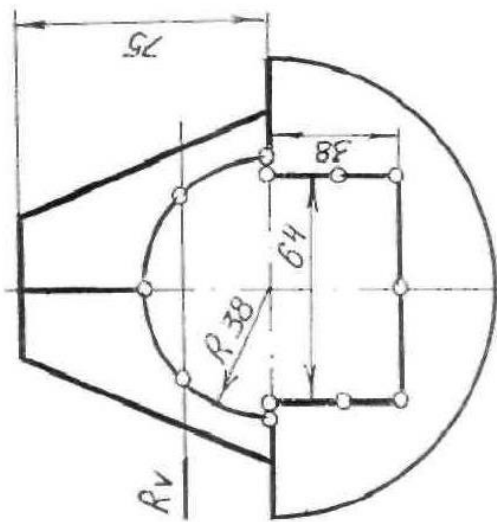
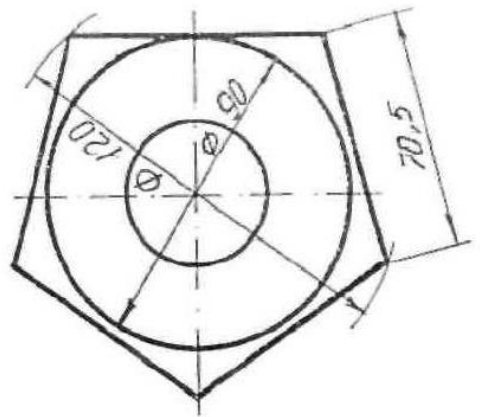


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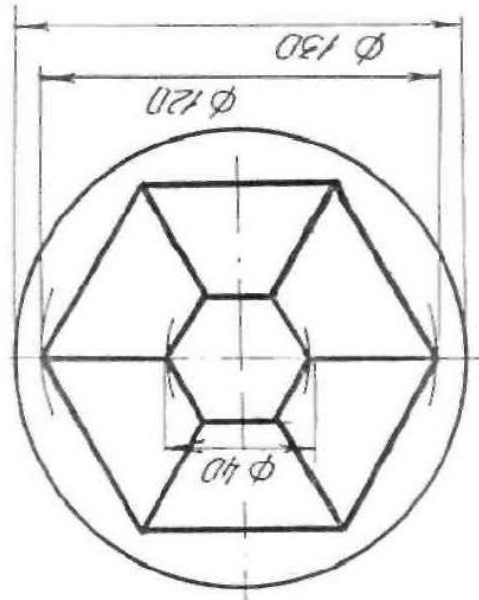


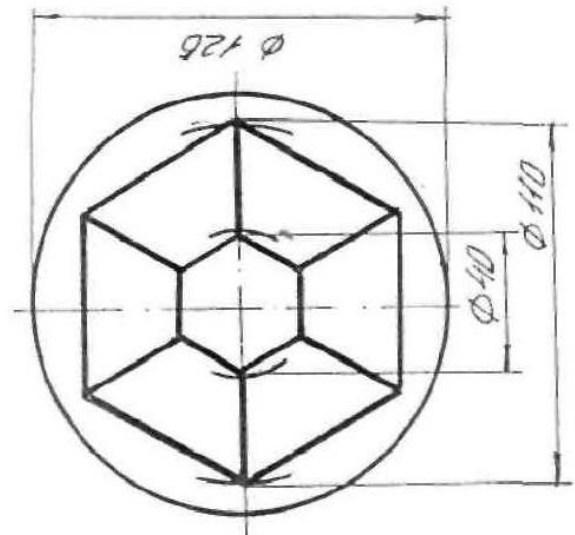
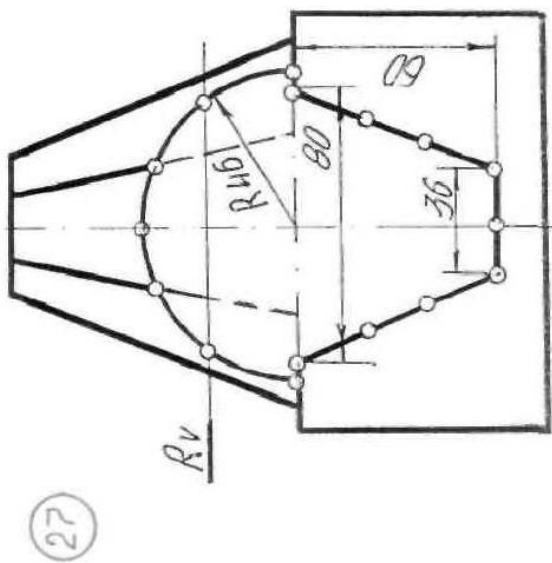
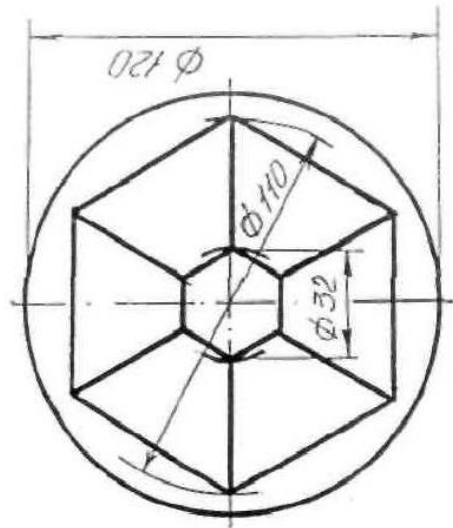
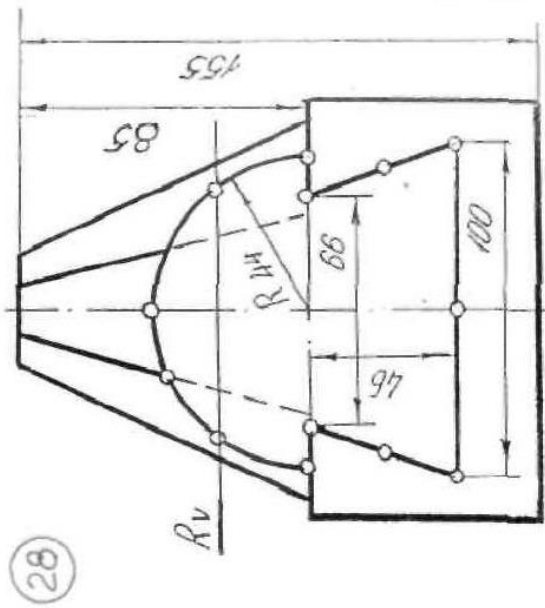


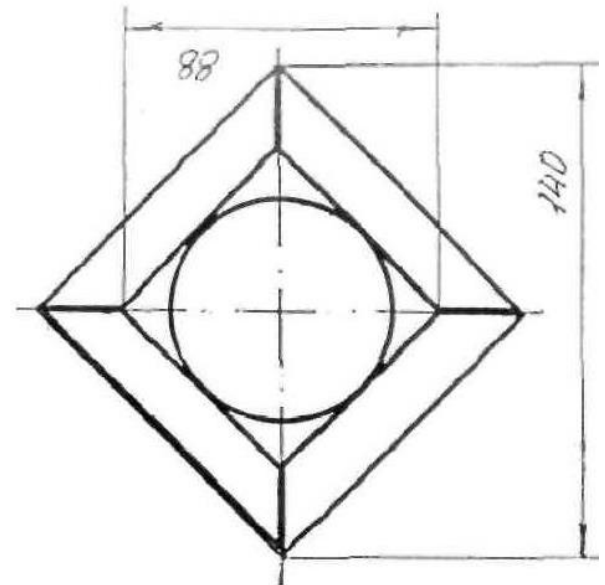
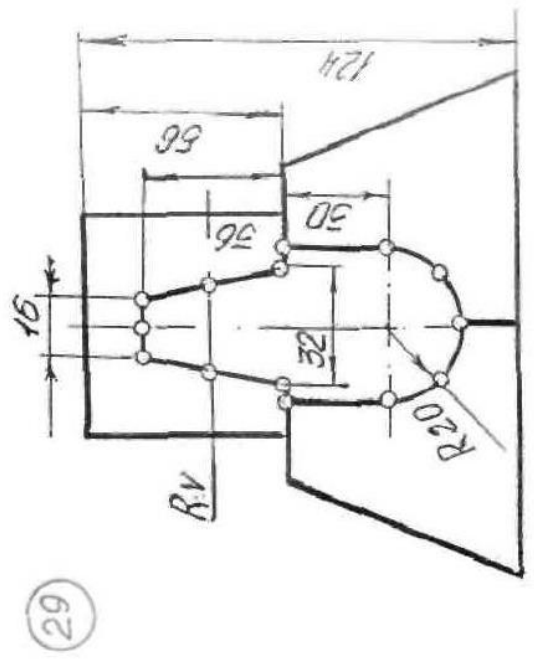
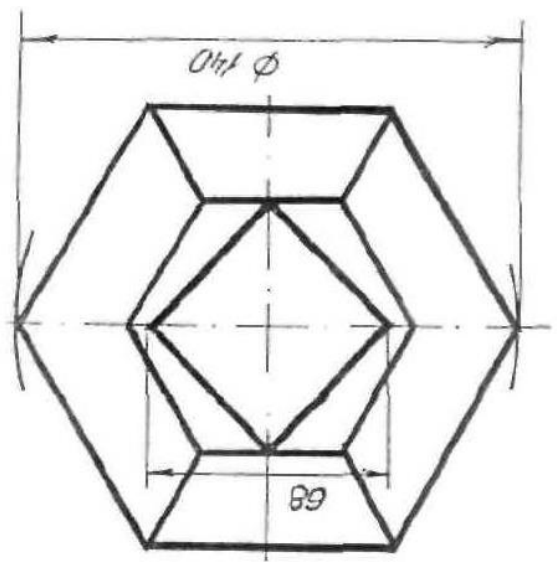
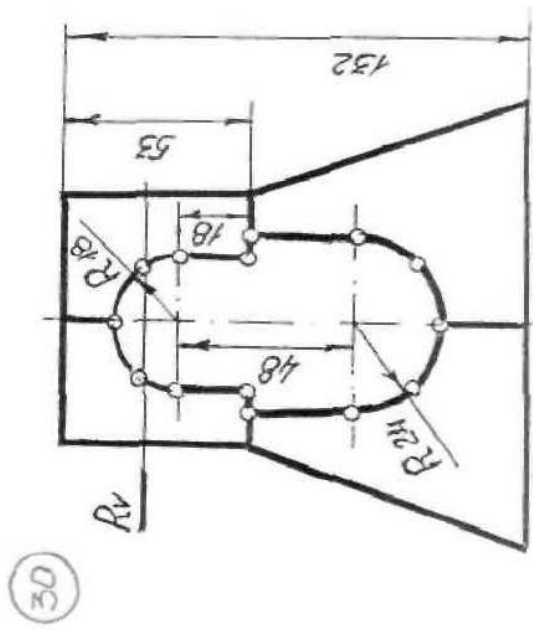
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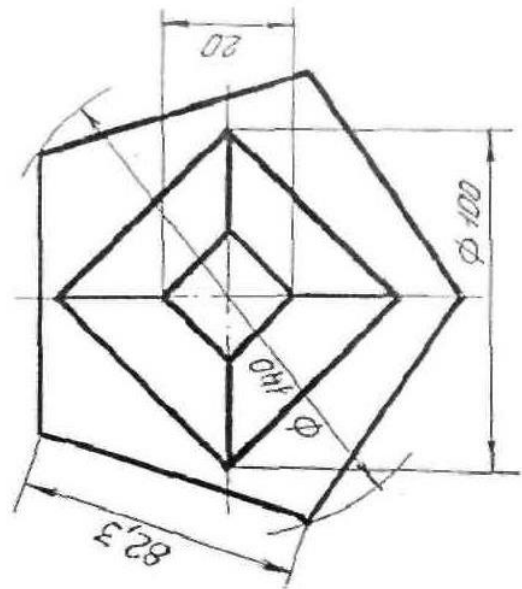
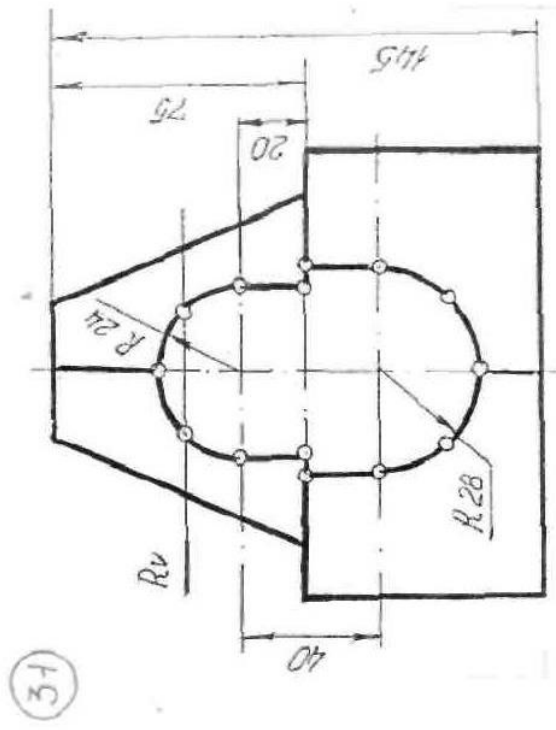
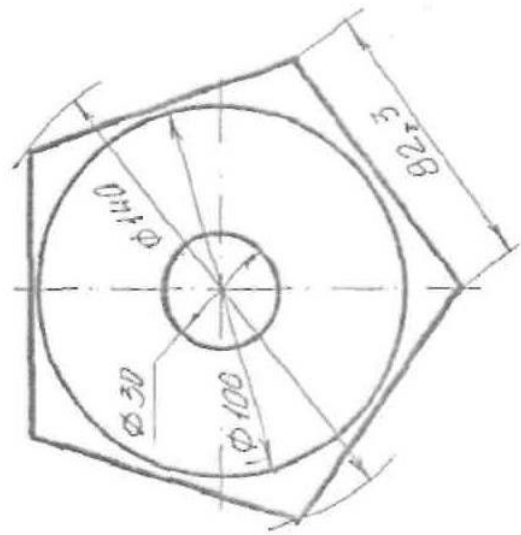
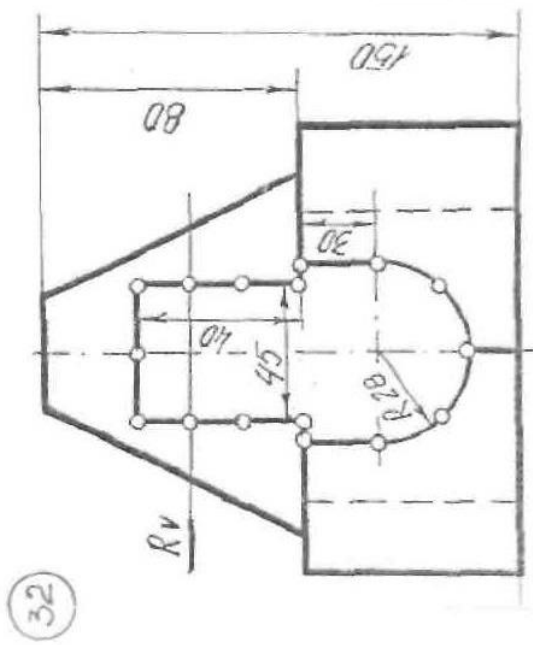


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**11-MASHQ**

**SIRTLARNING**

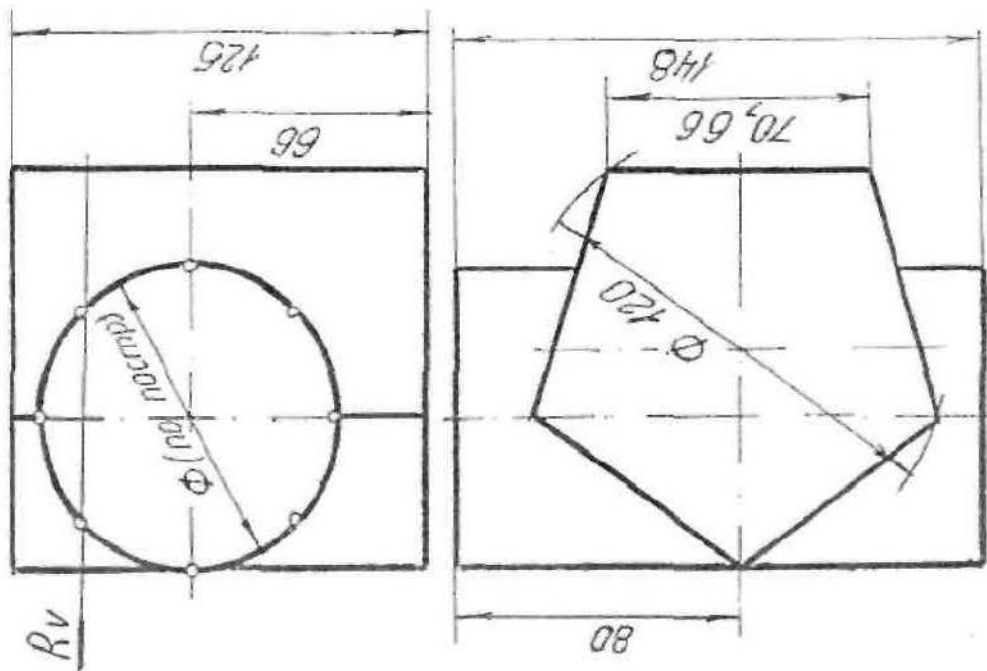
**O‘ZARO**

**KESISHUVI**

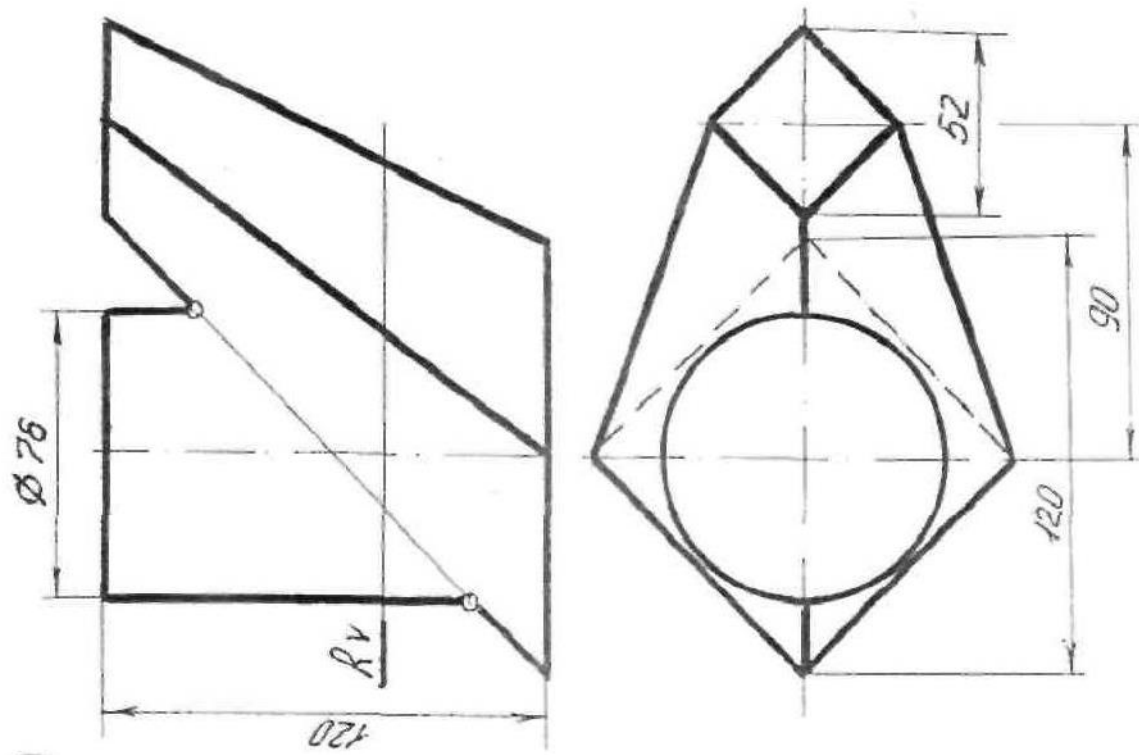
**MAVZUSIGA DOIR**

**VARIANTLAR**

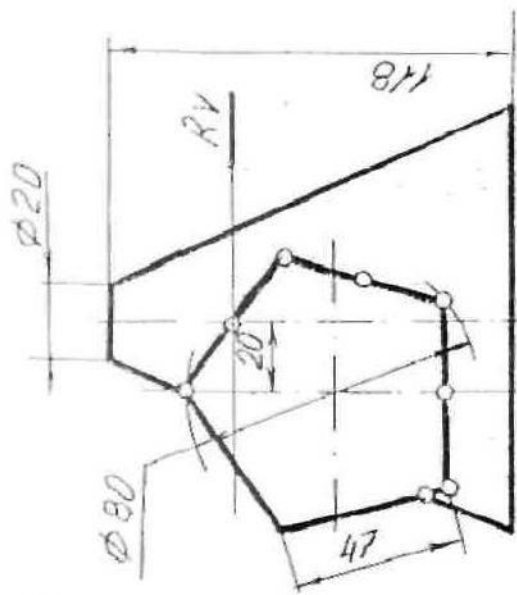
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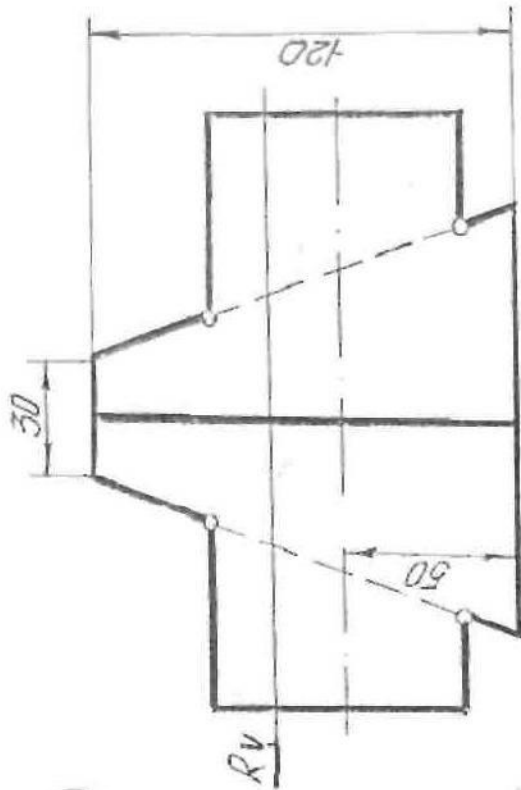
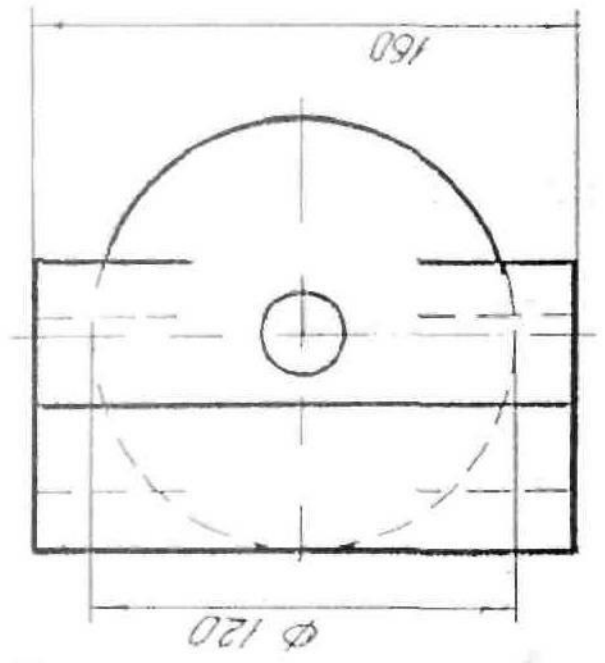
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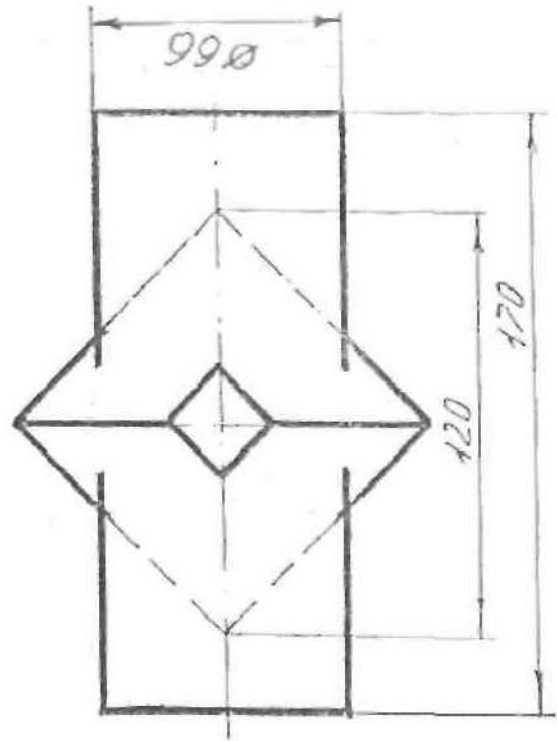


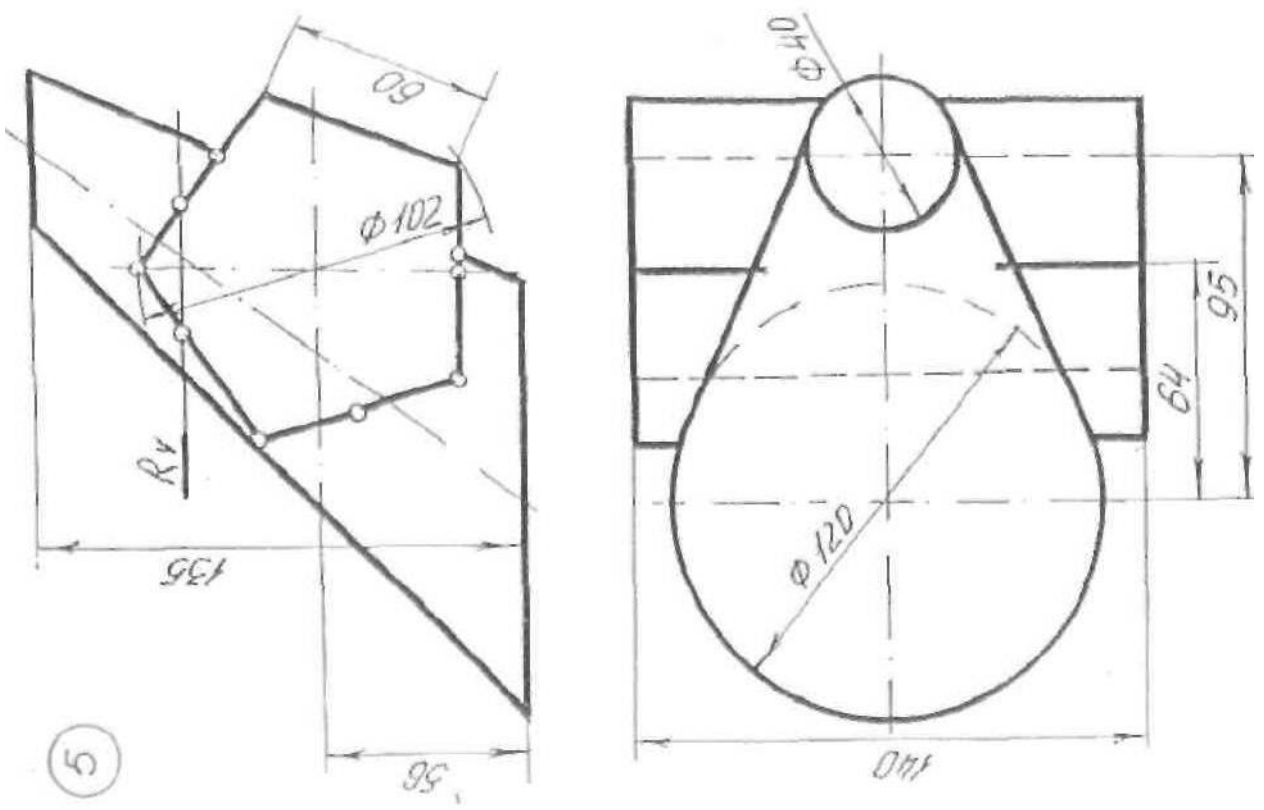
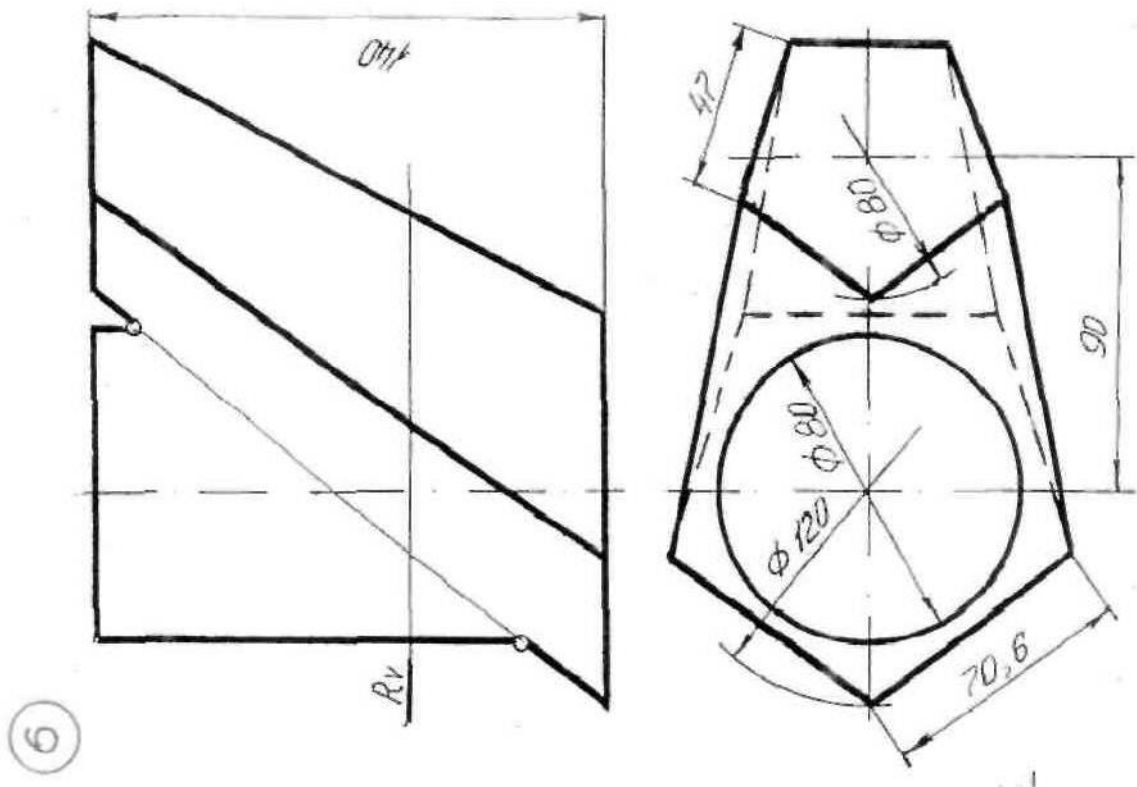


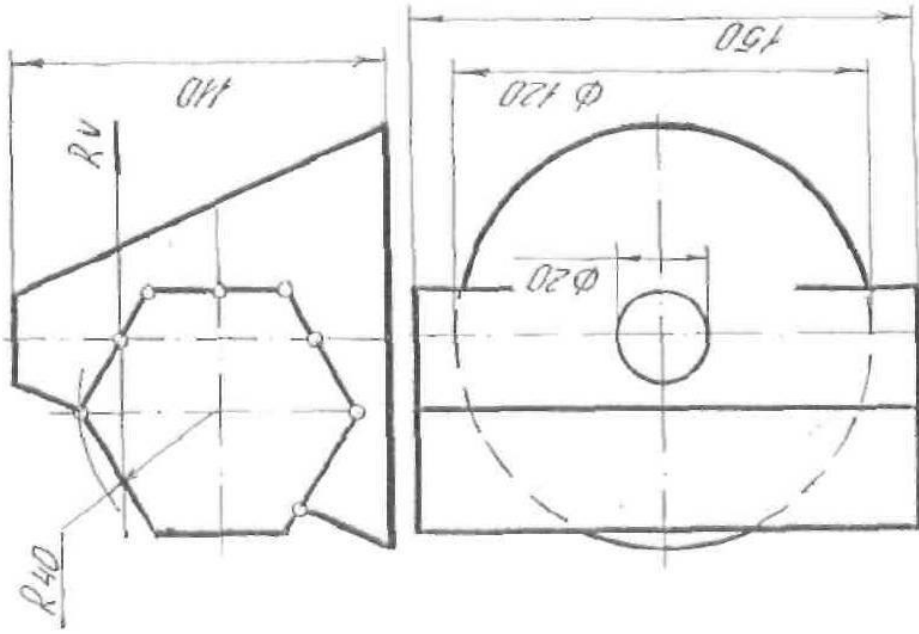
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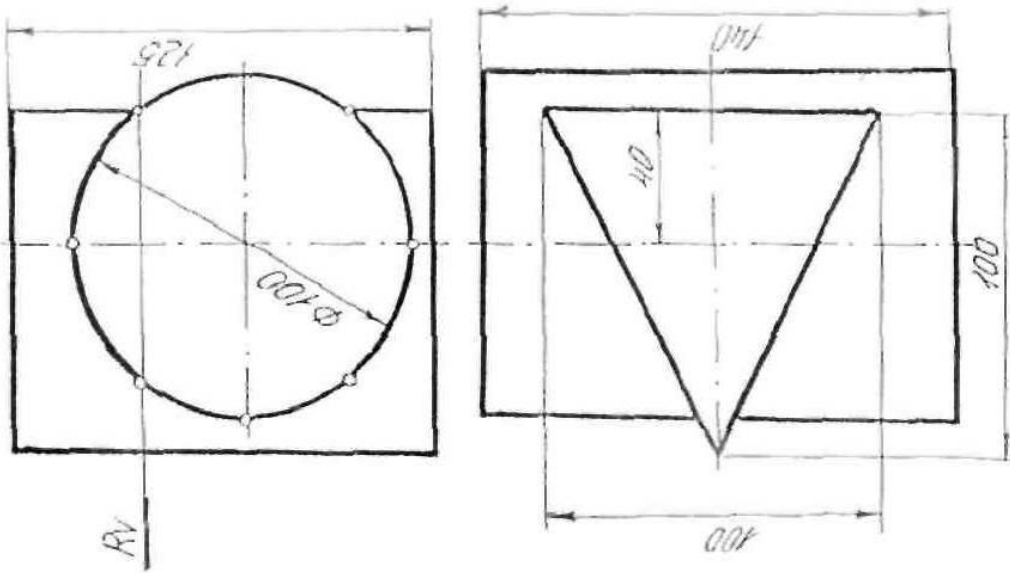
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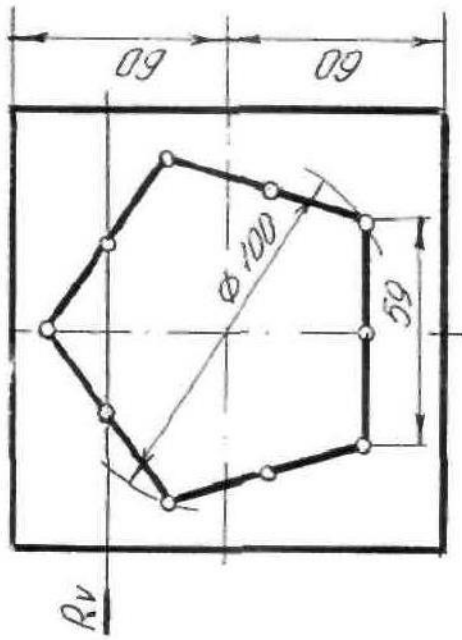




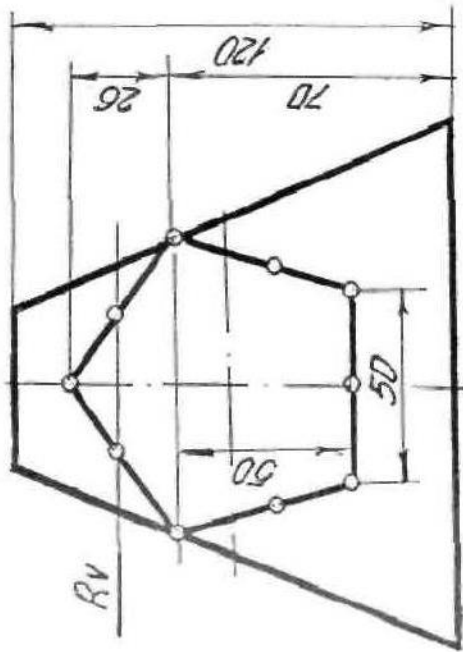
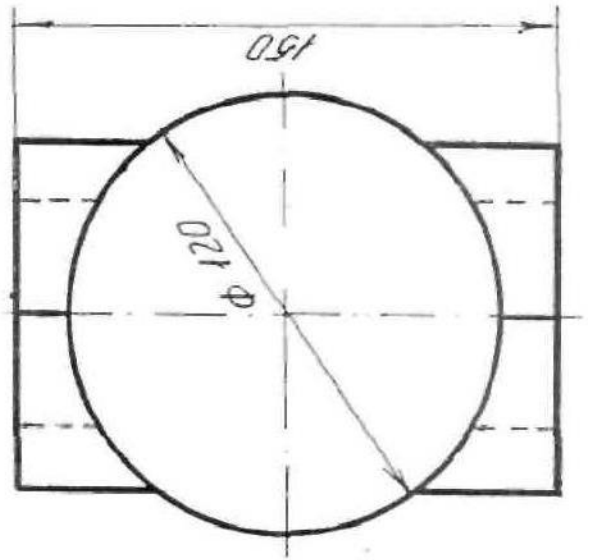
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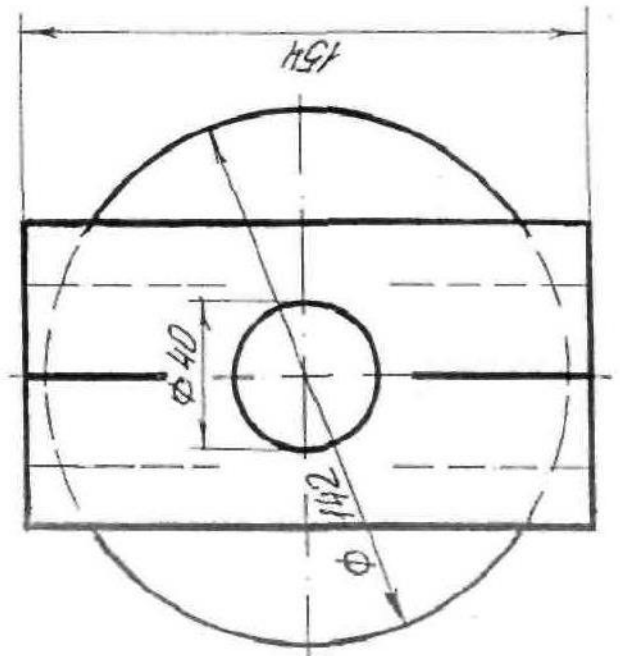
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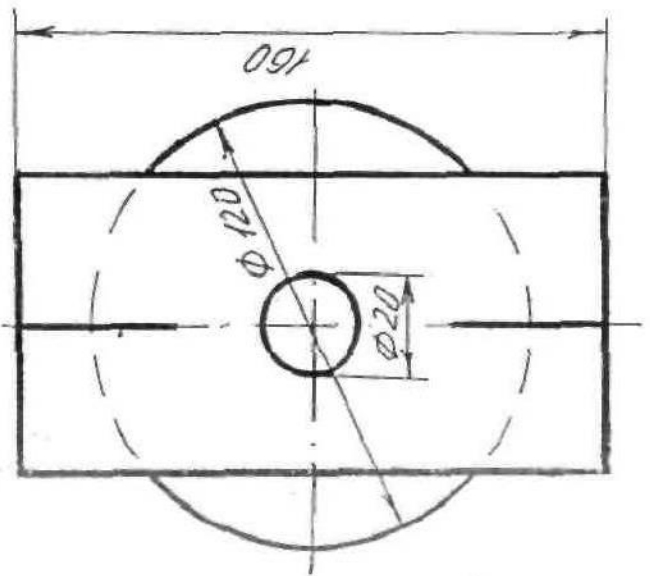
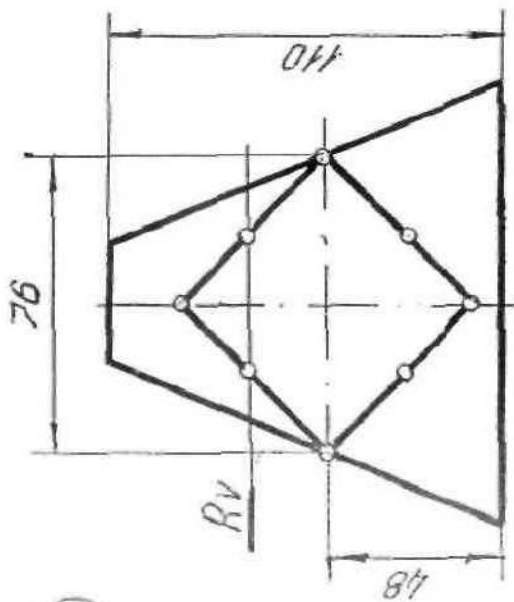
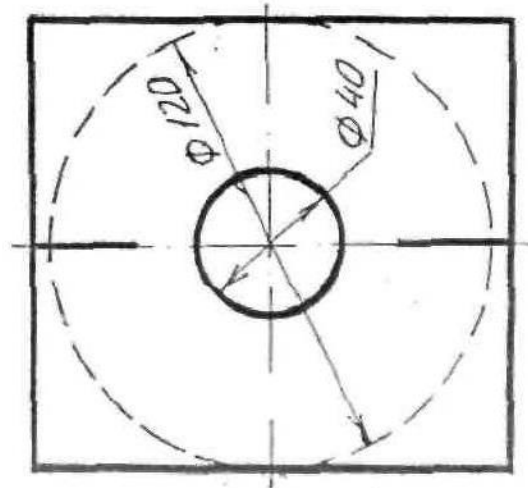
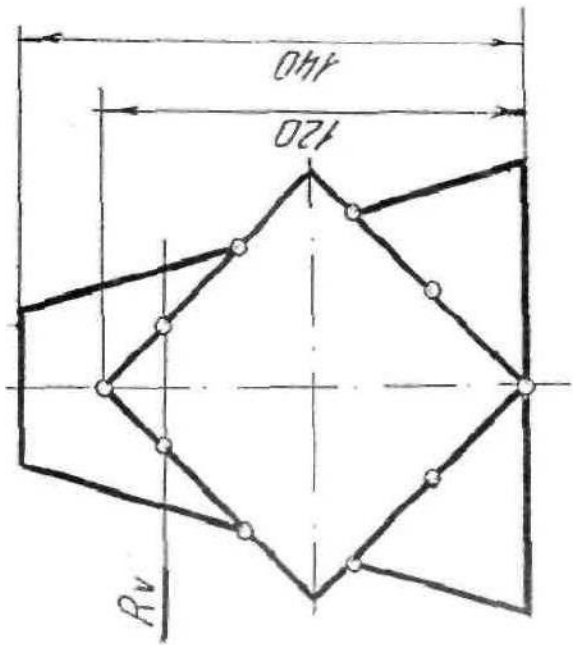


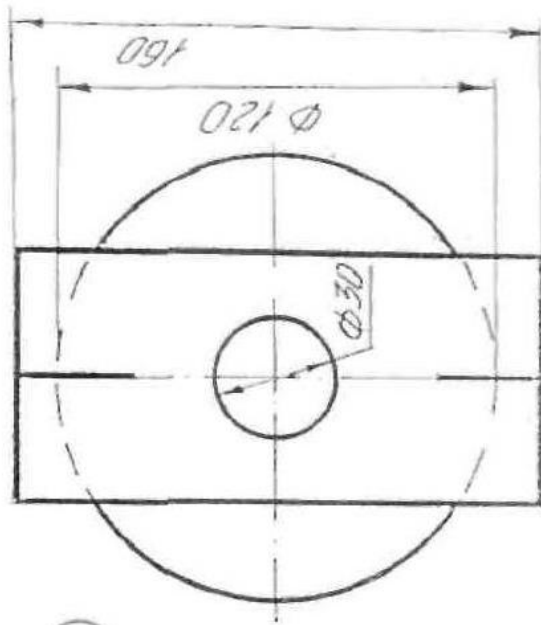
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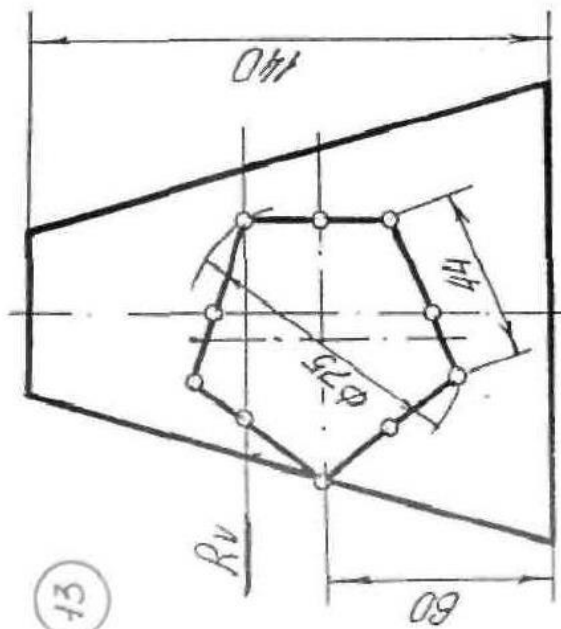
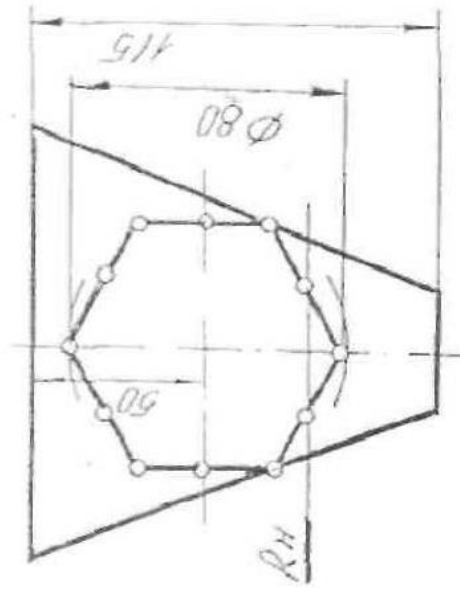
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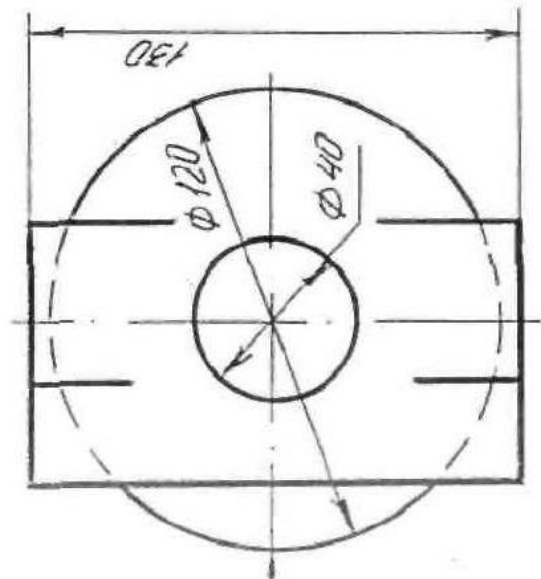


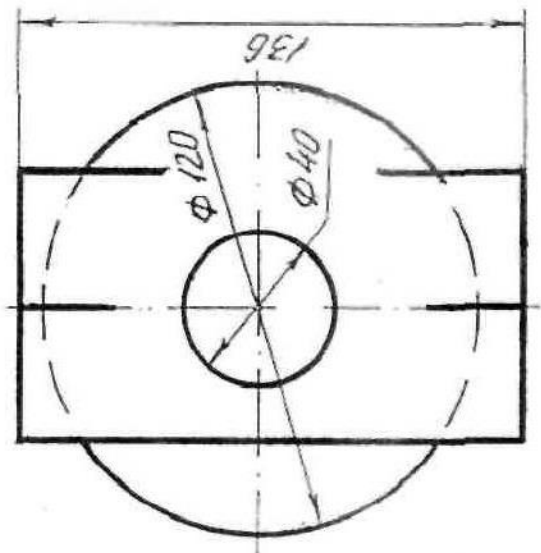
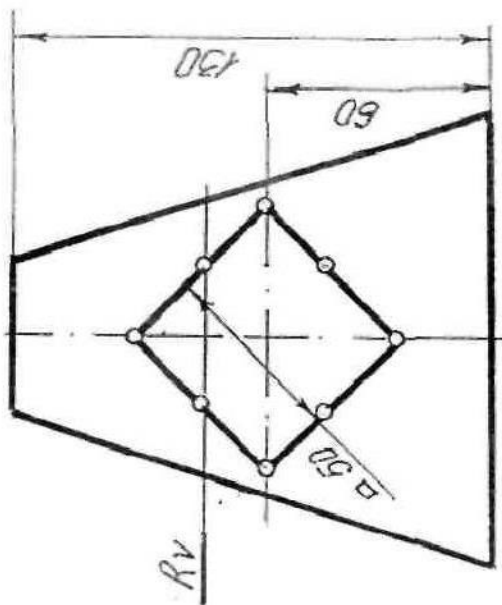
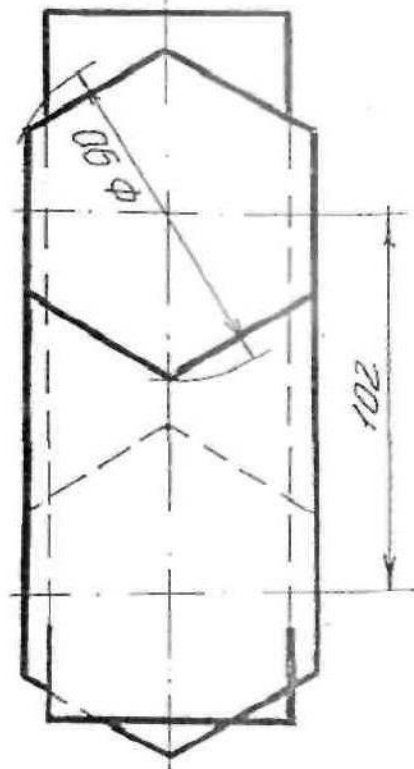
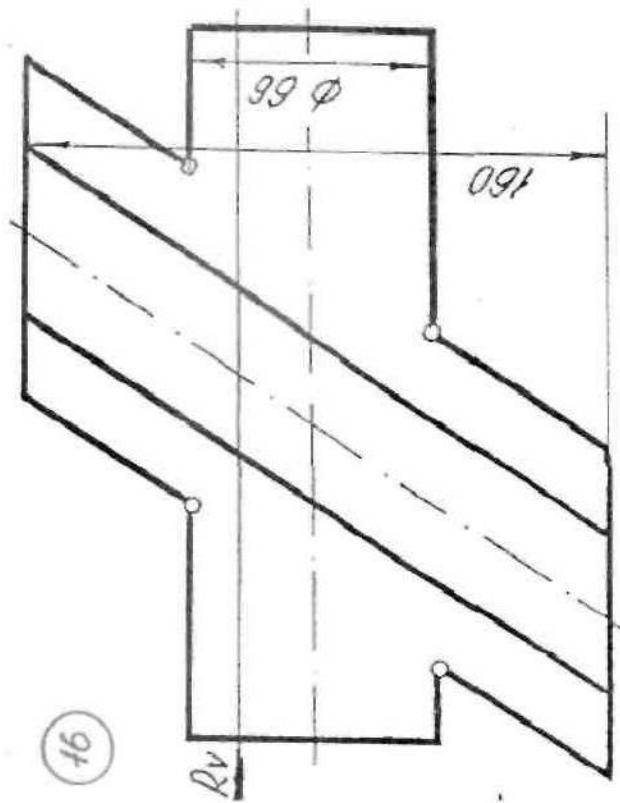


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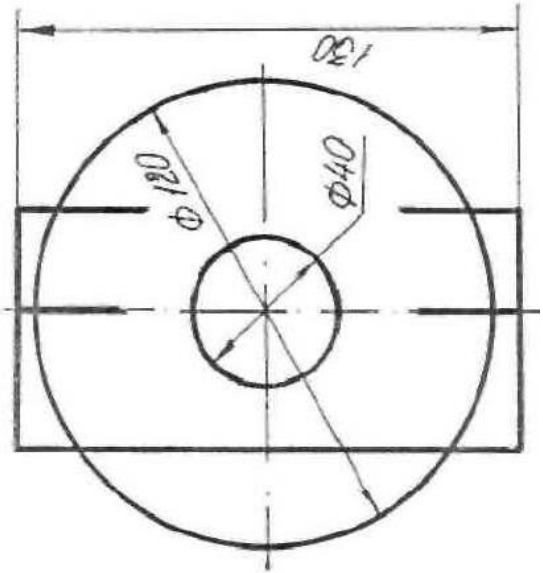
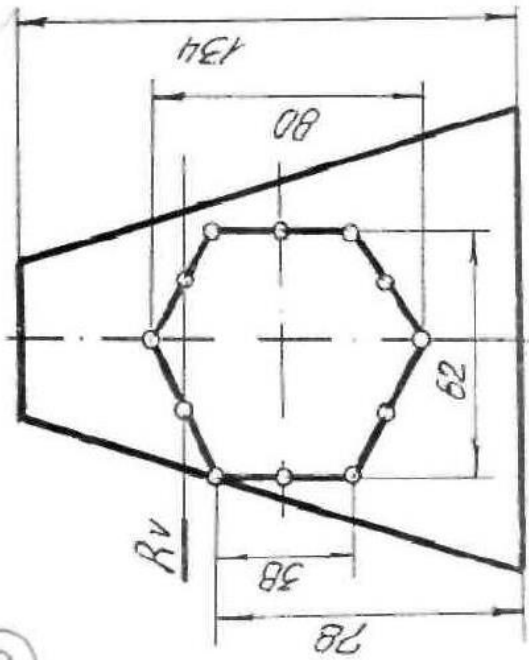


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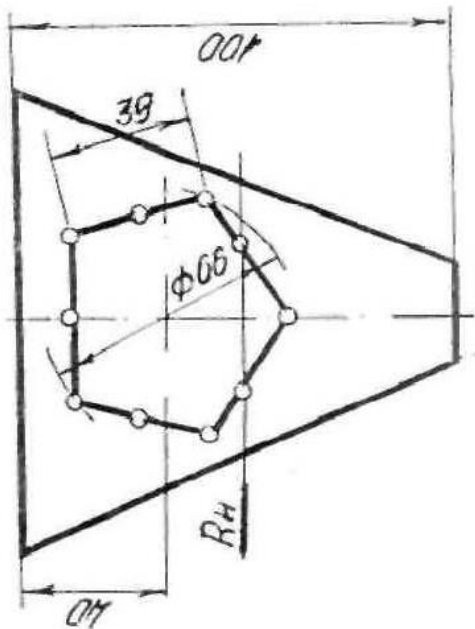
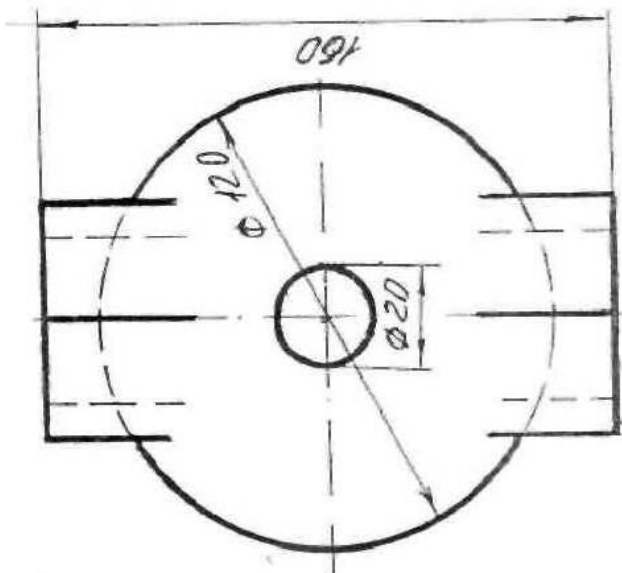




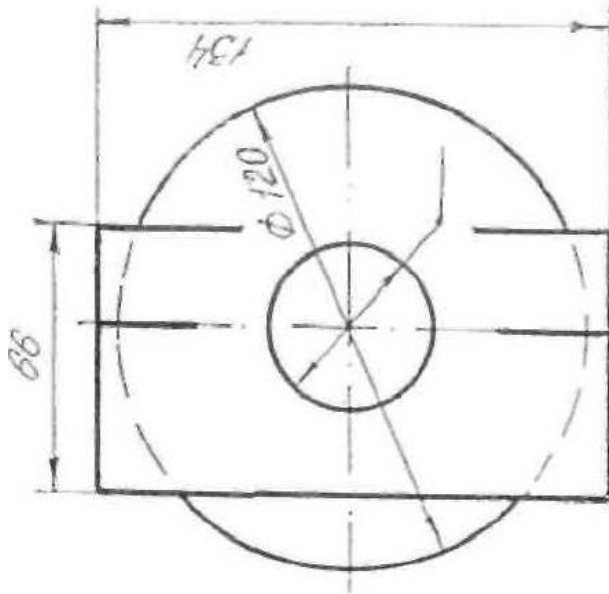
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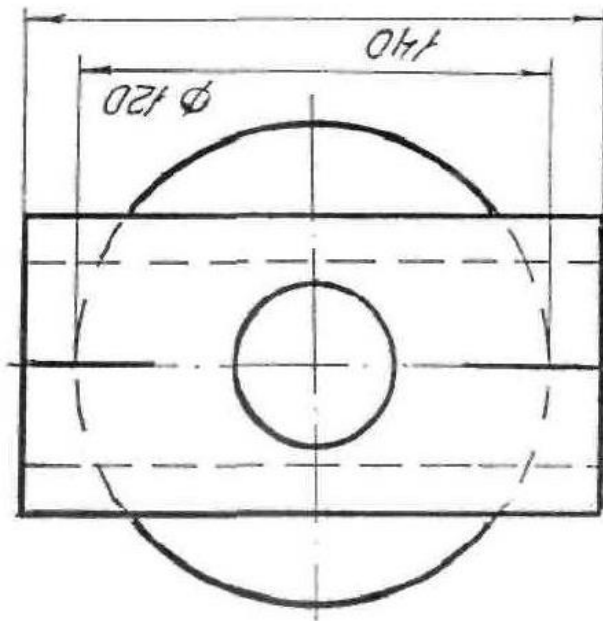
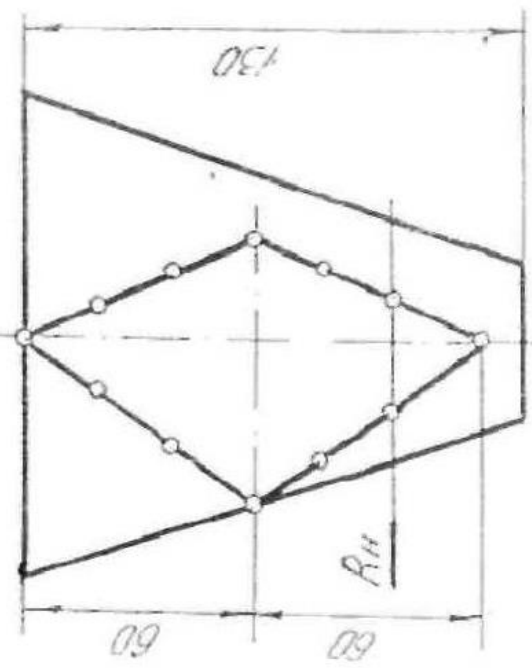
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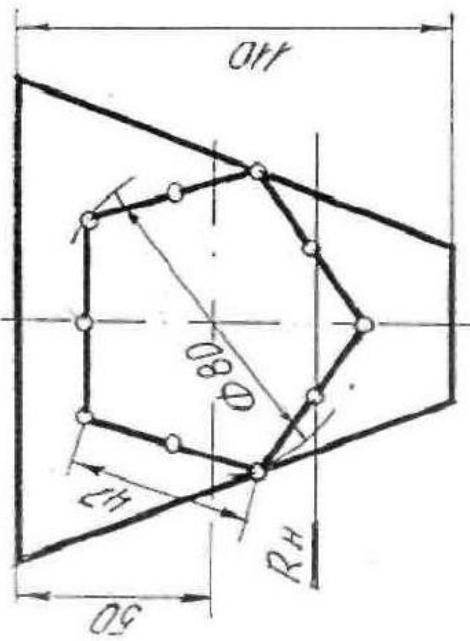


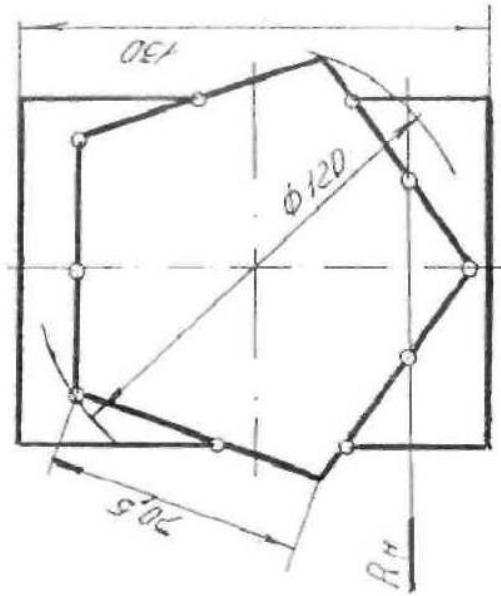
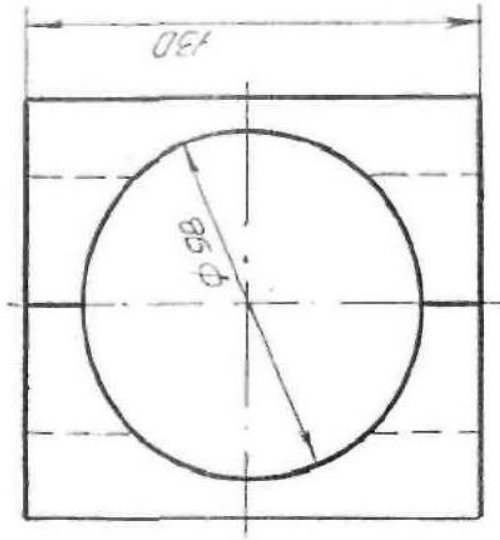


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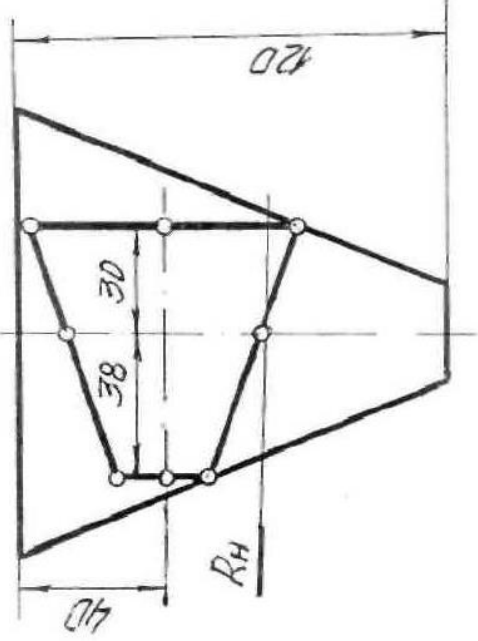
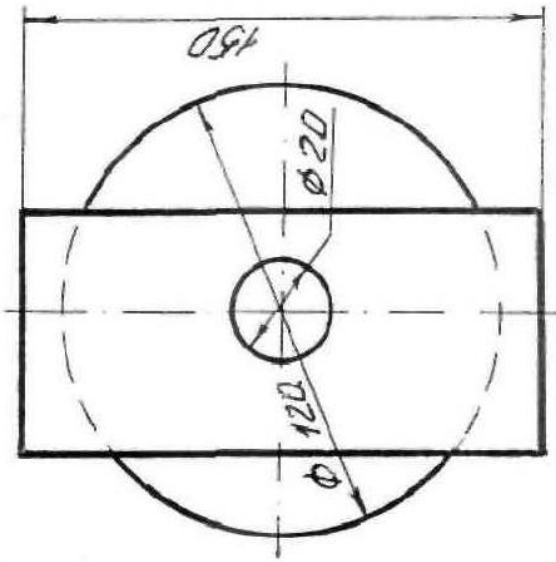


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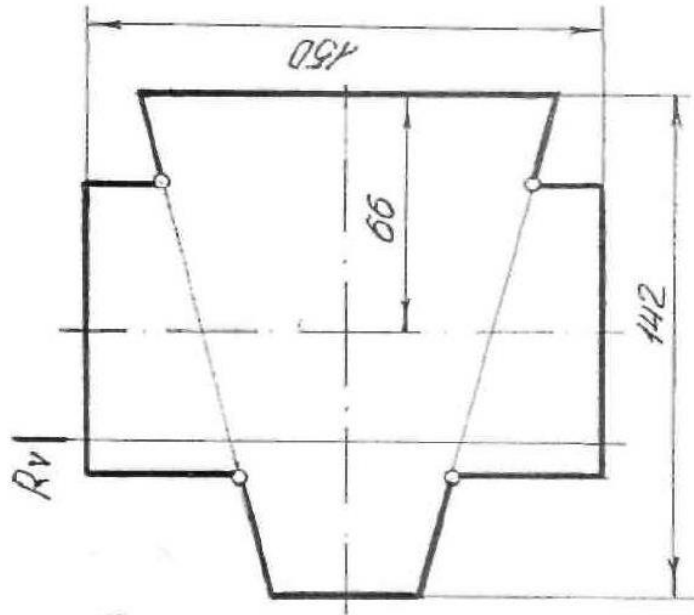




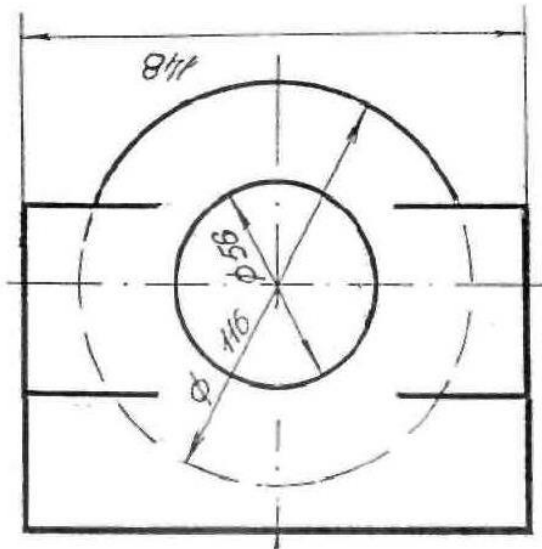
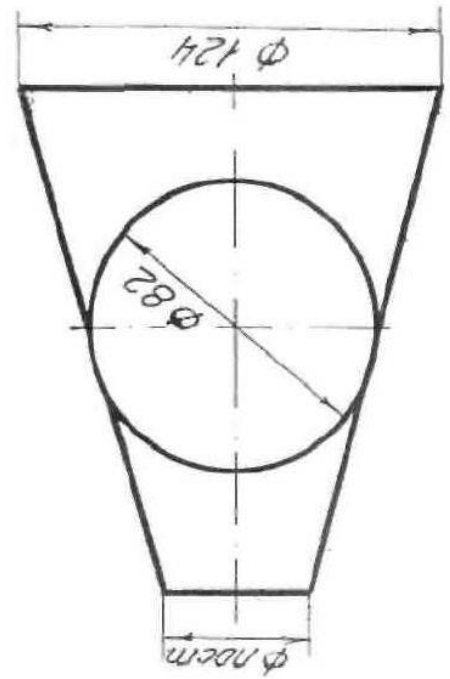
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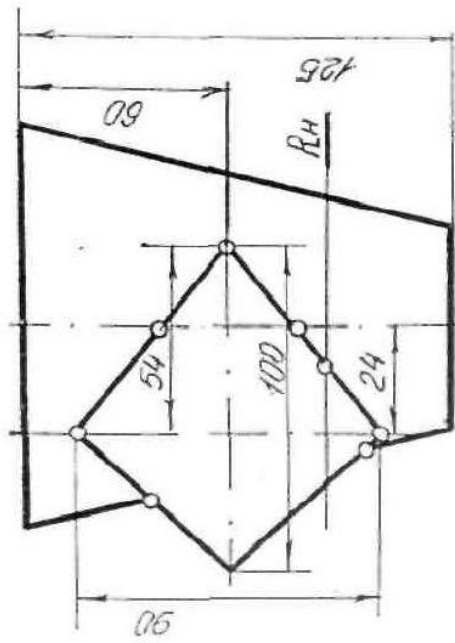
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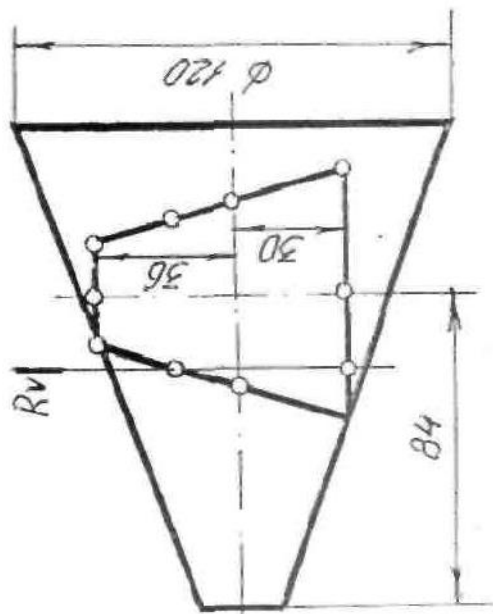


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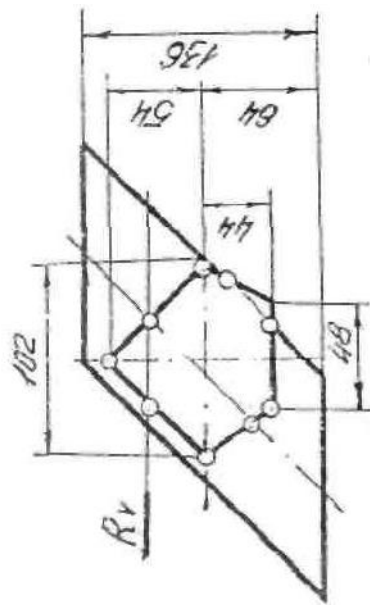


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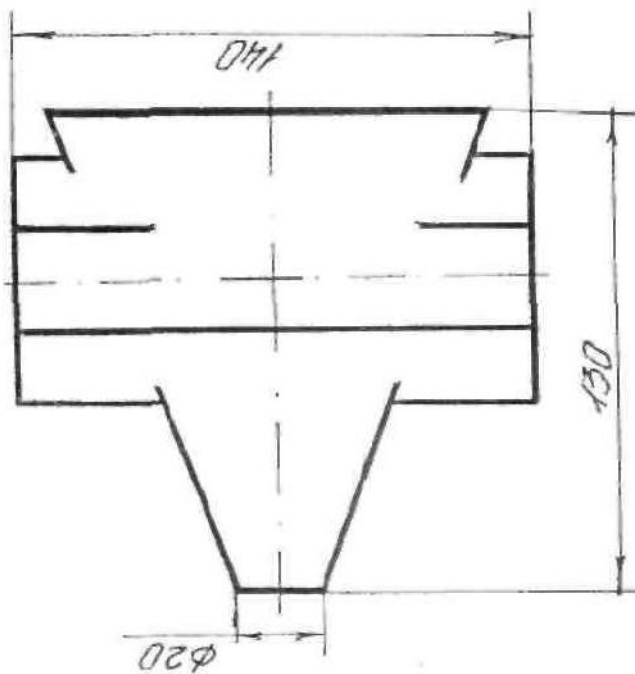
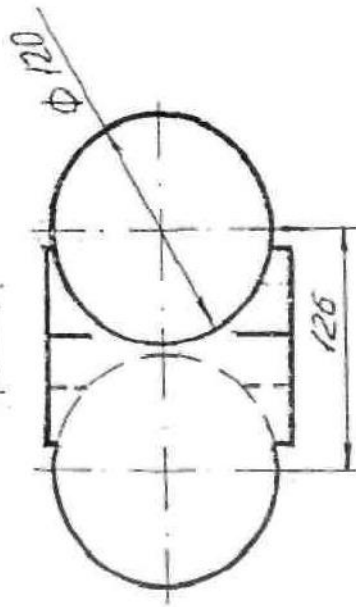




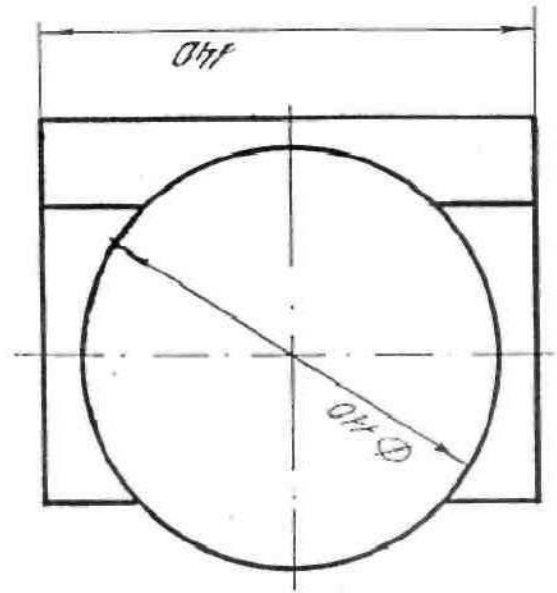
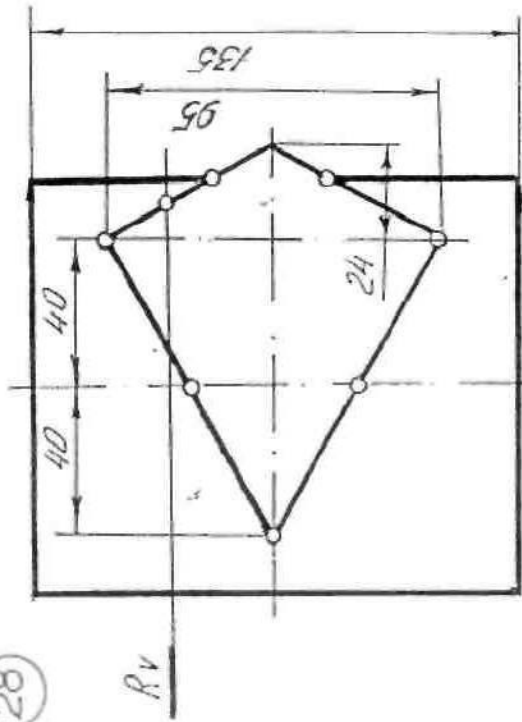
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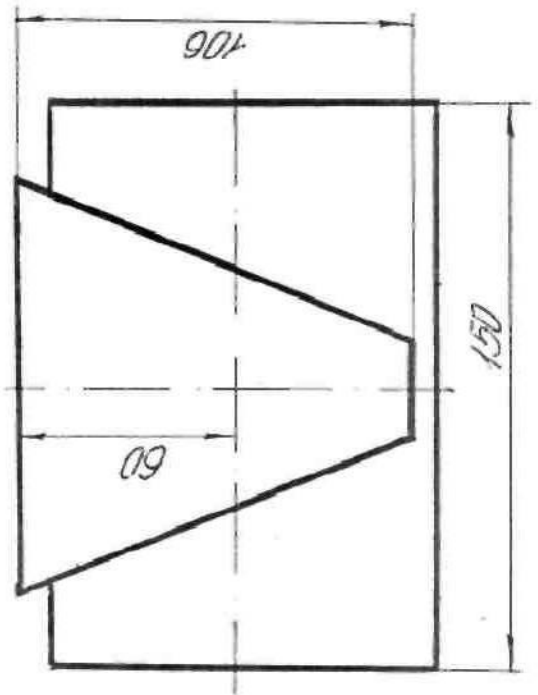
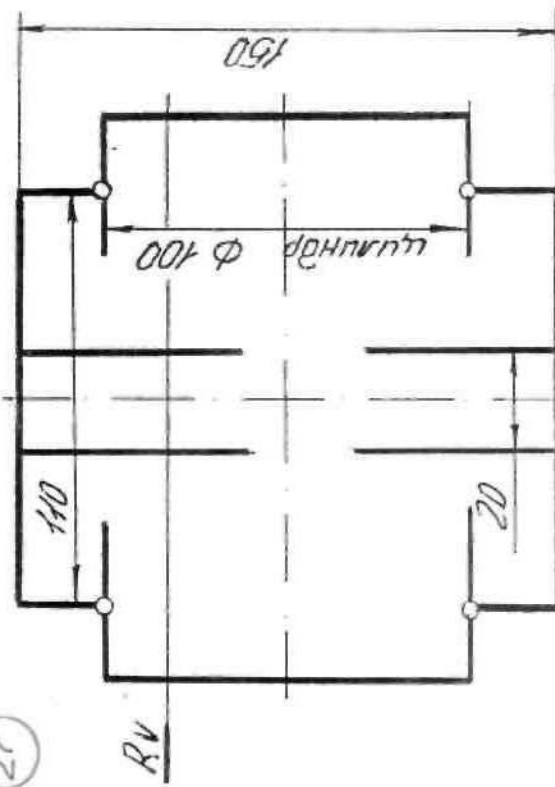
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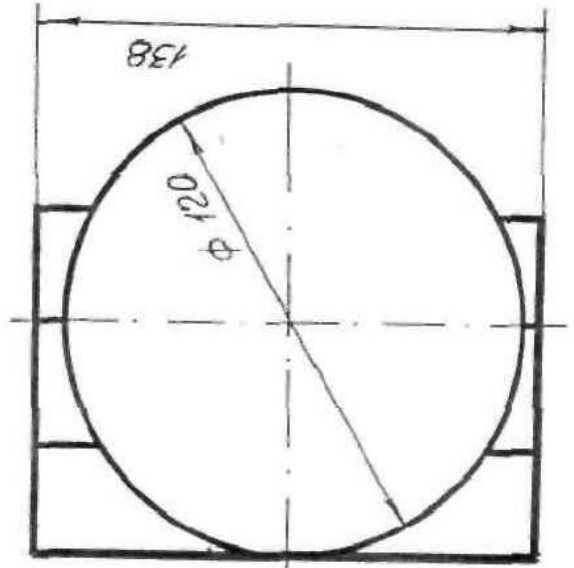
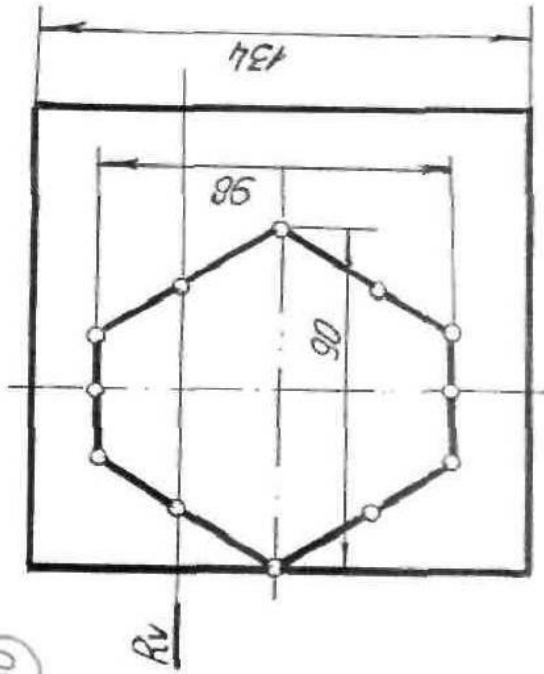
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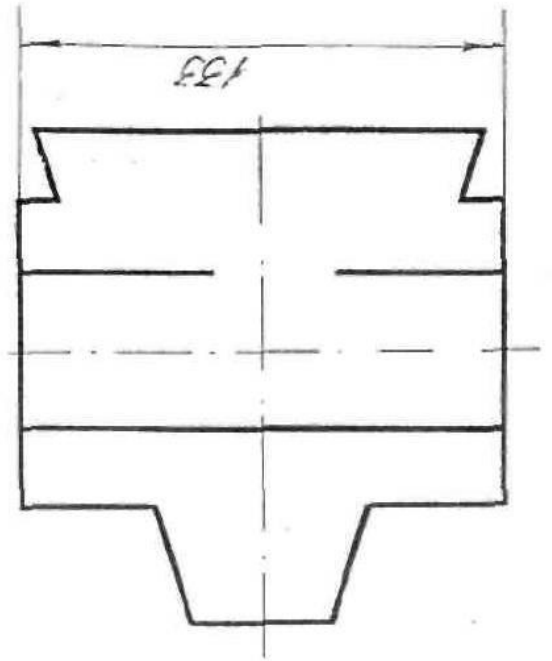
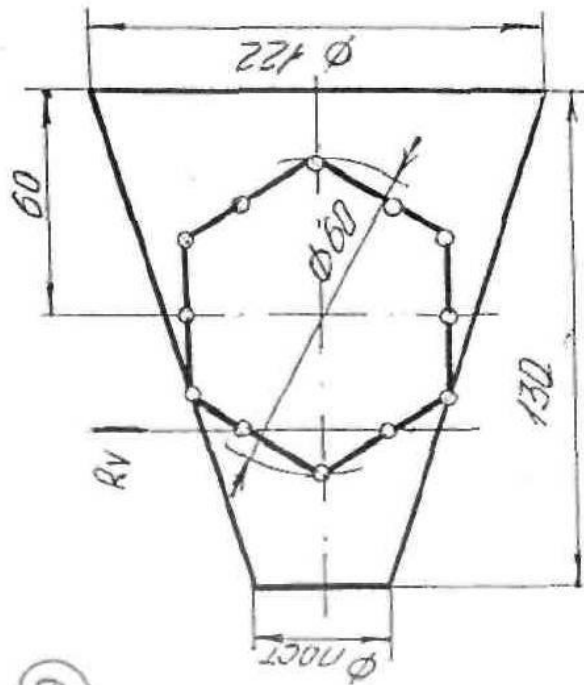
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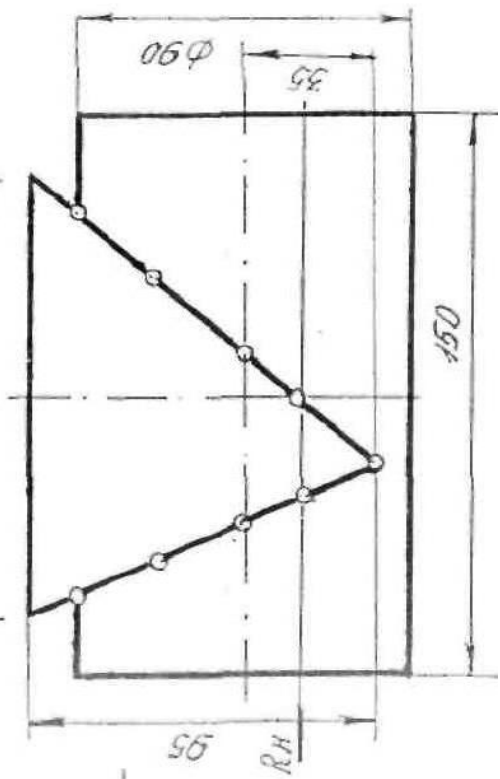
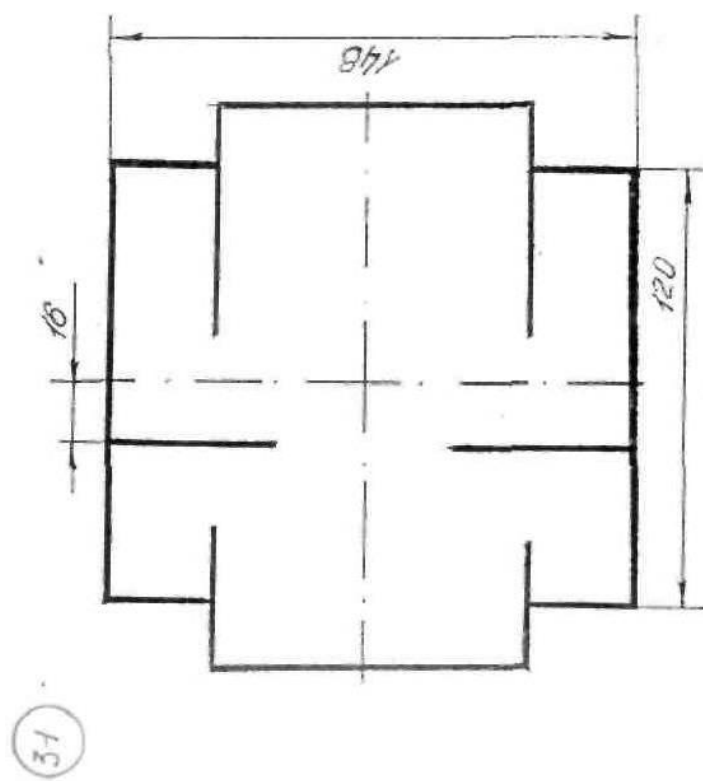
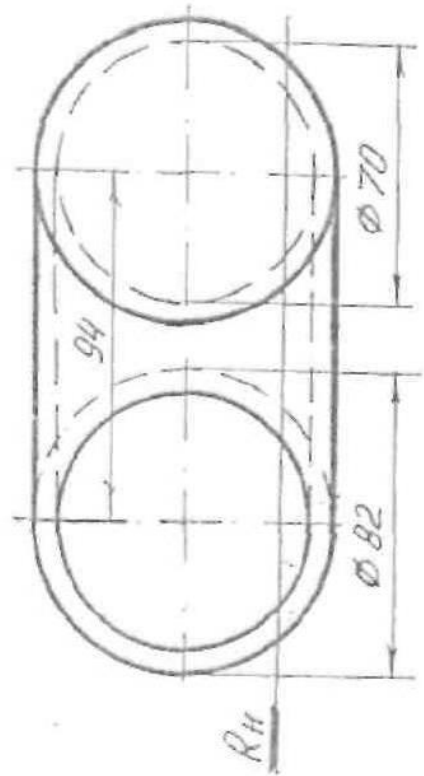
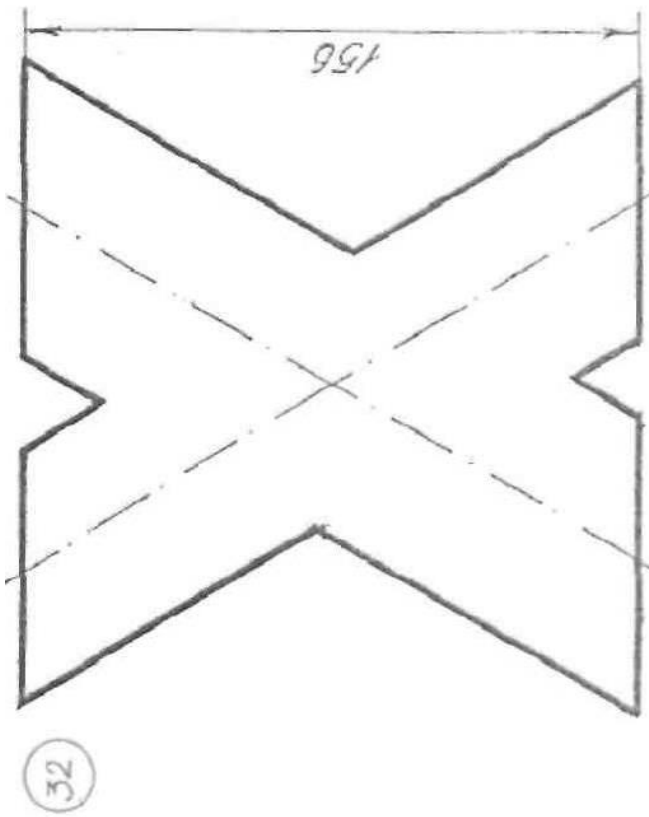


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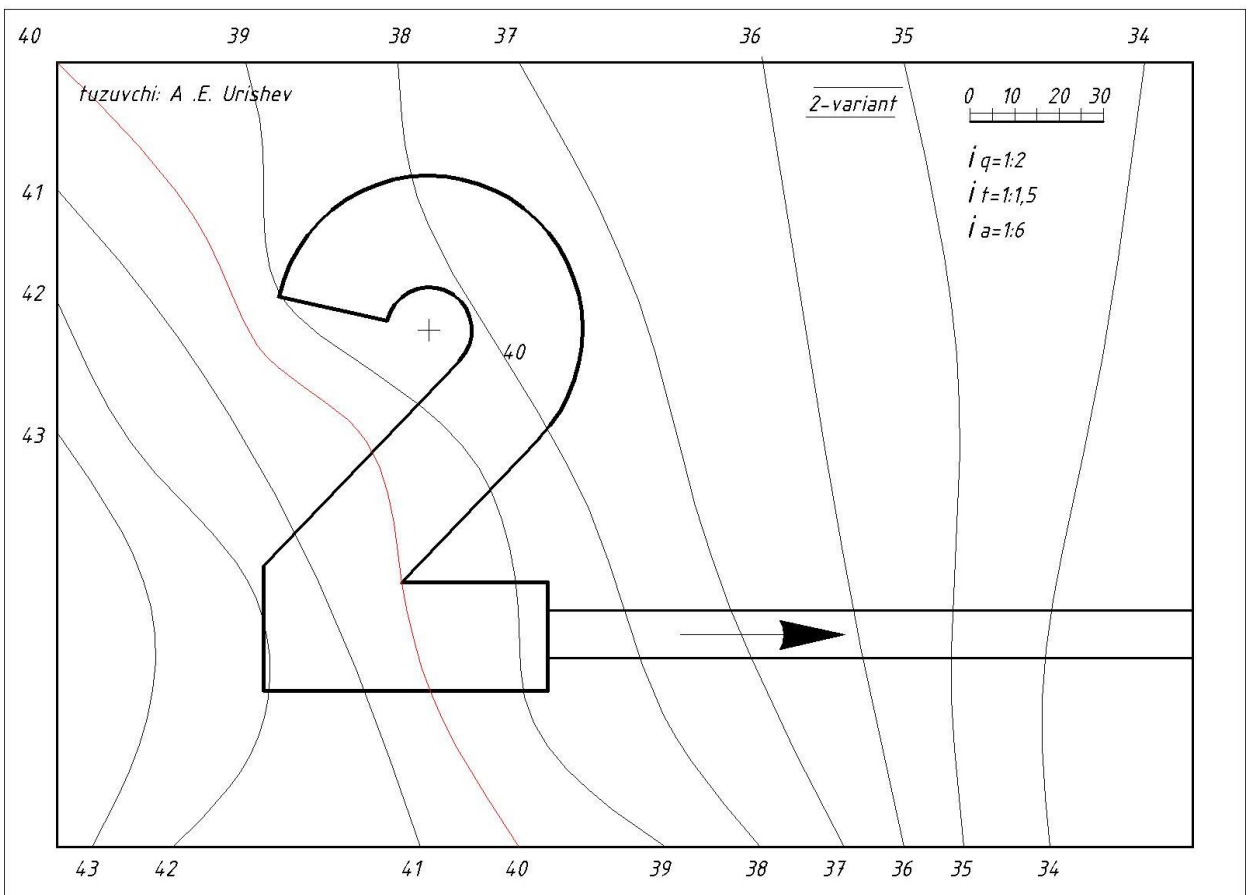
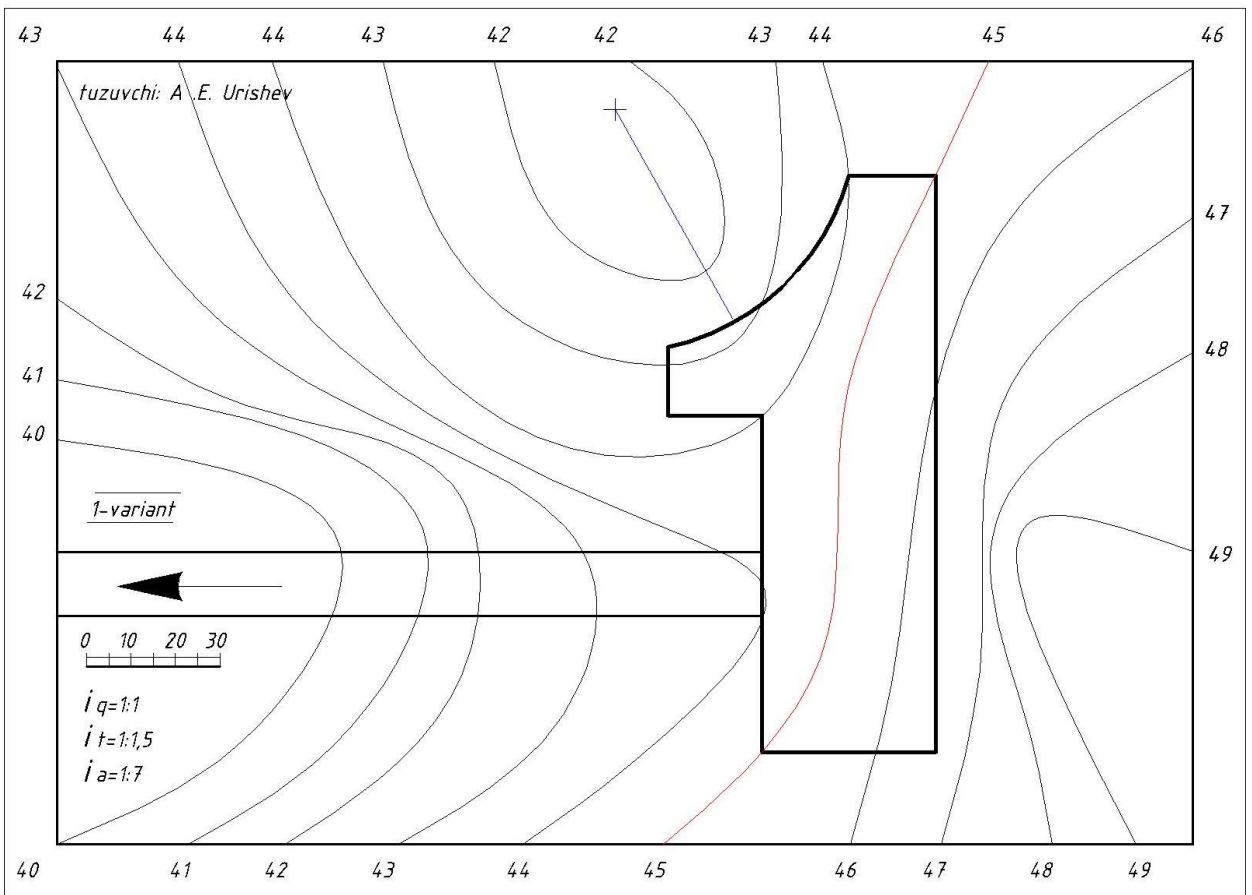
**12-MASHQ**

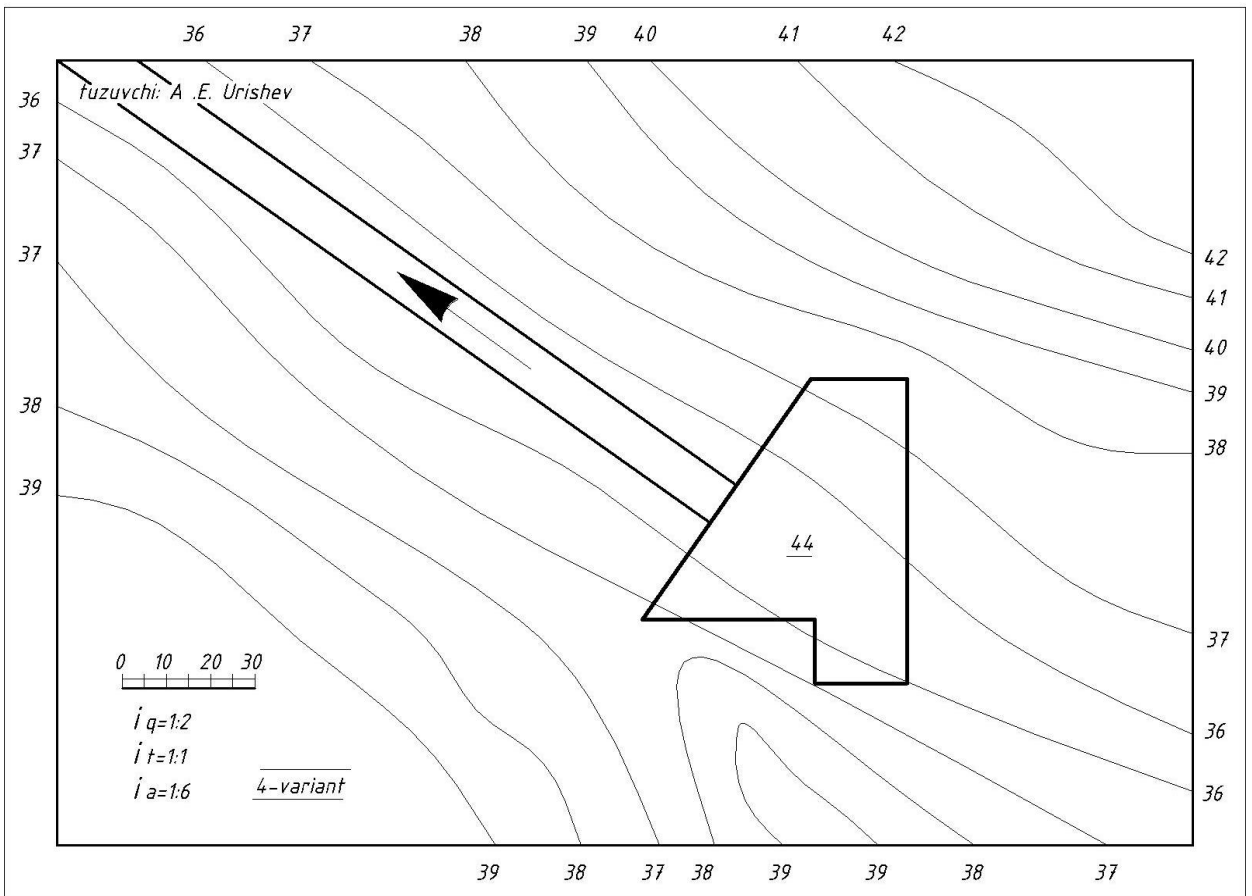
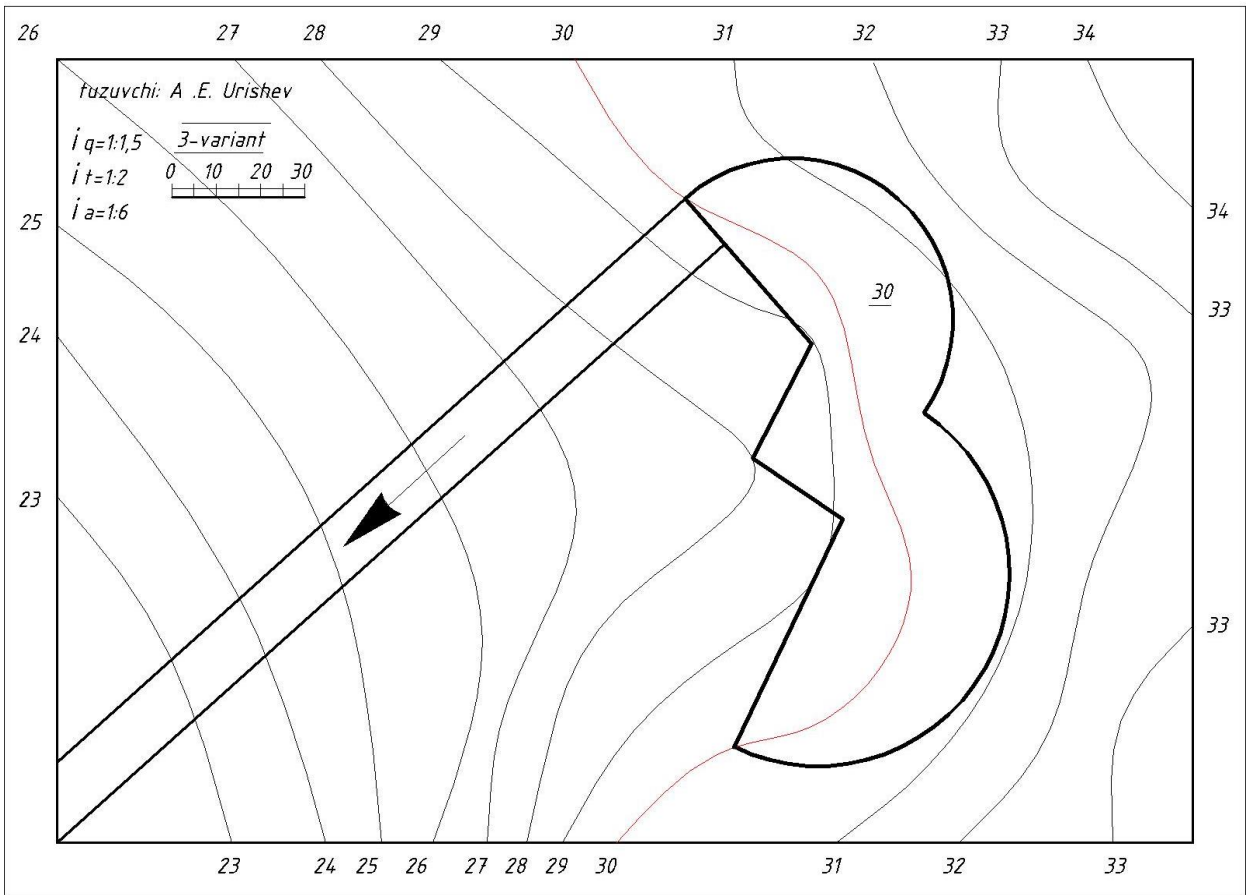
**TO‘G‘RI  
CHIZIQLI  
APPARELLI  
MAYDON**

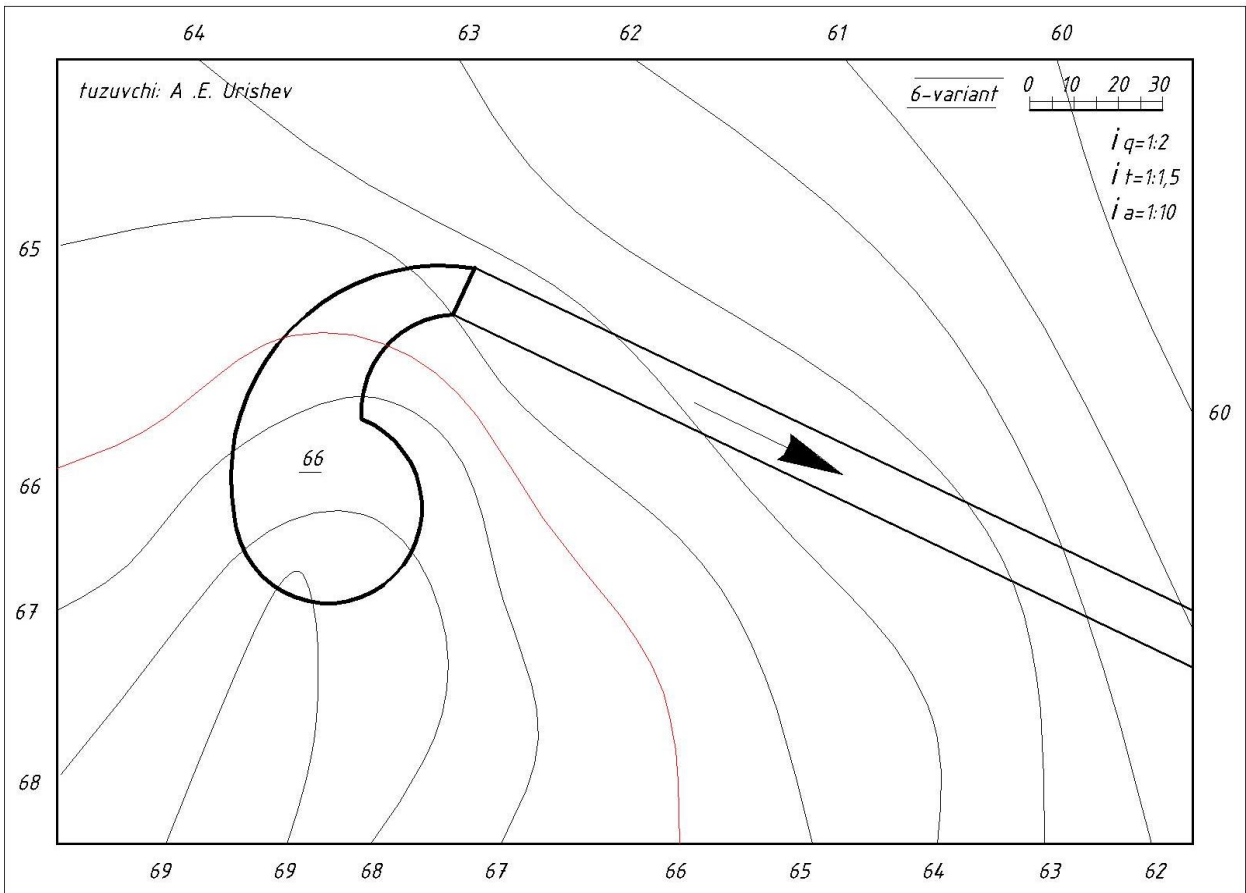
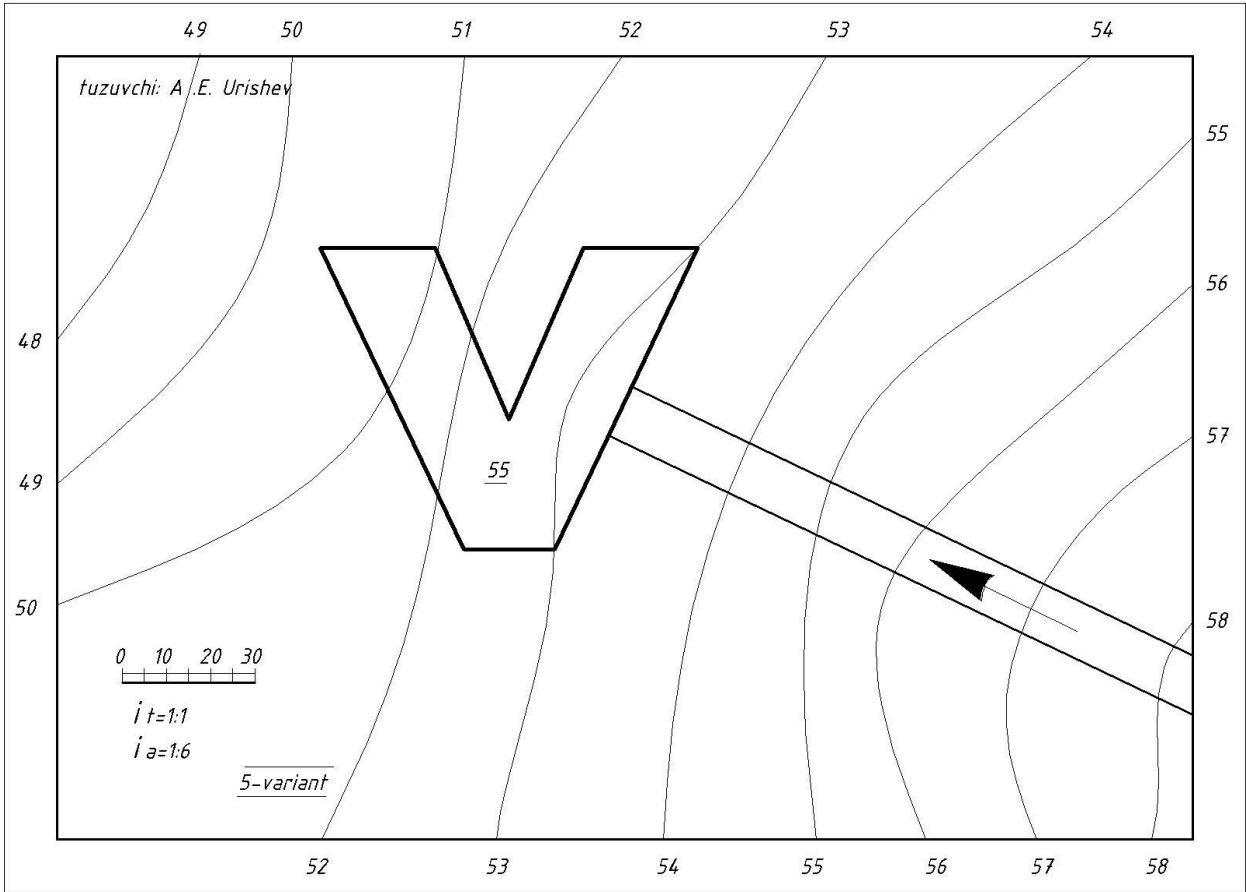
**MAVZUSIGA DOIR**

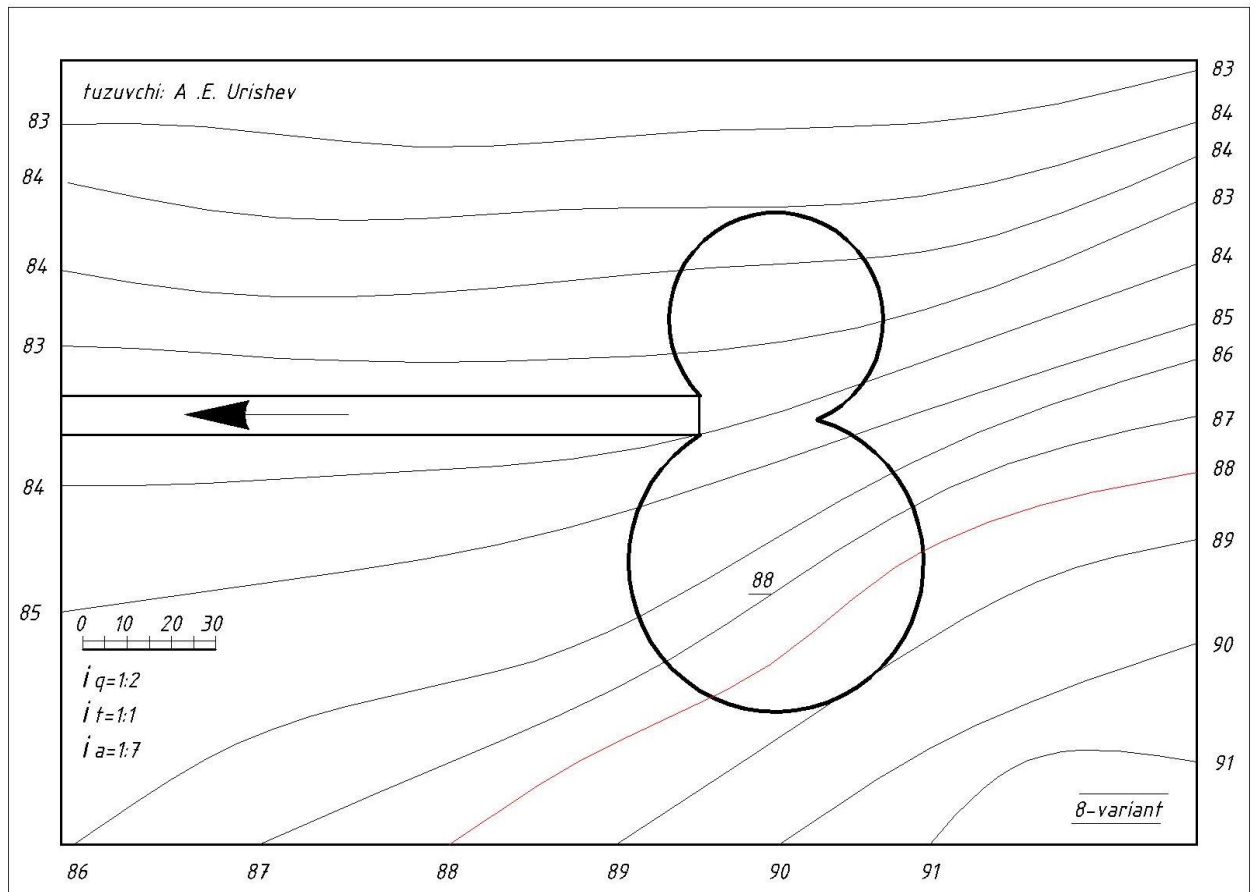
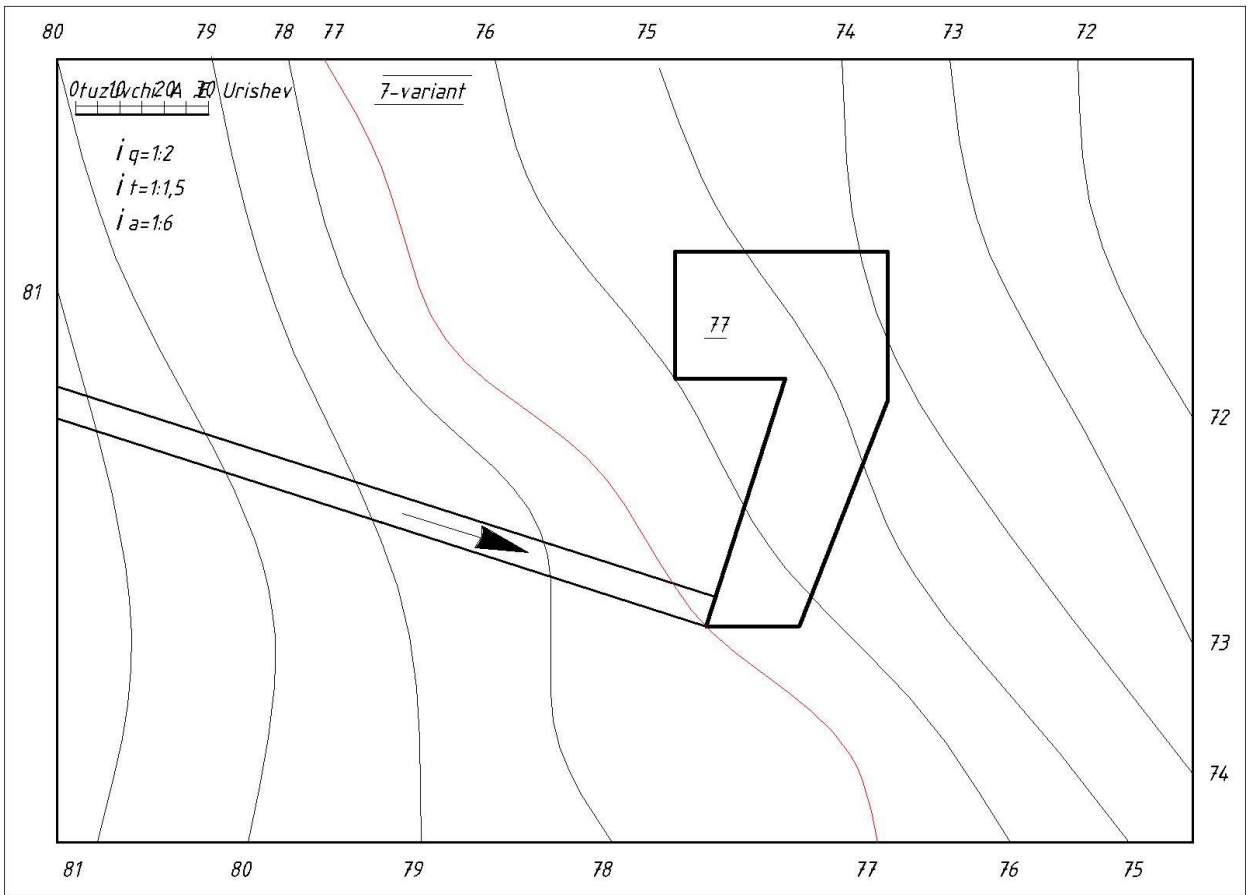
**VARIANTLAR**

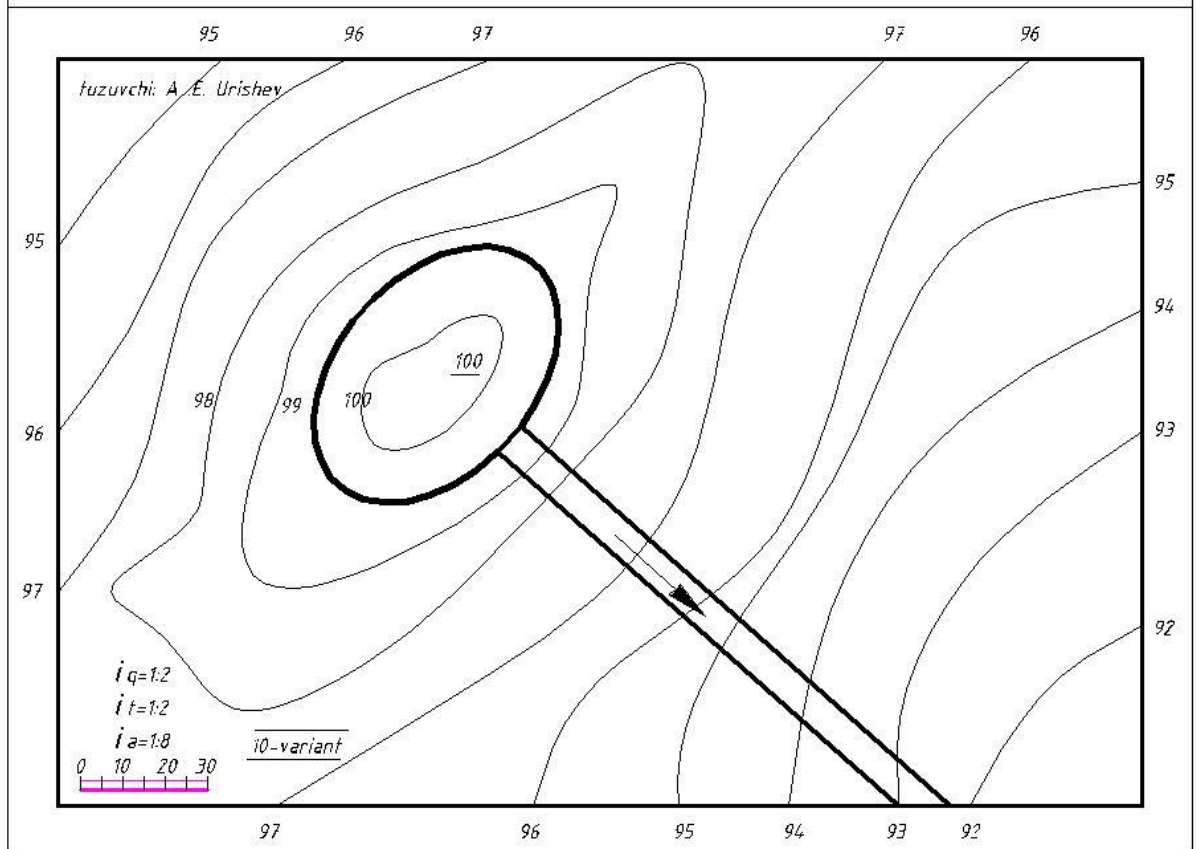
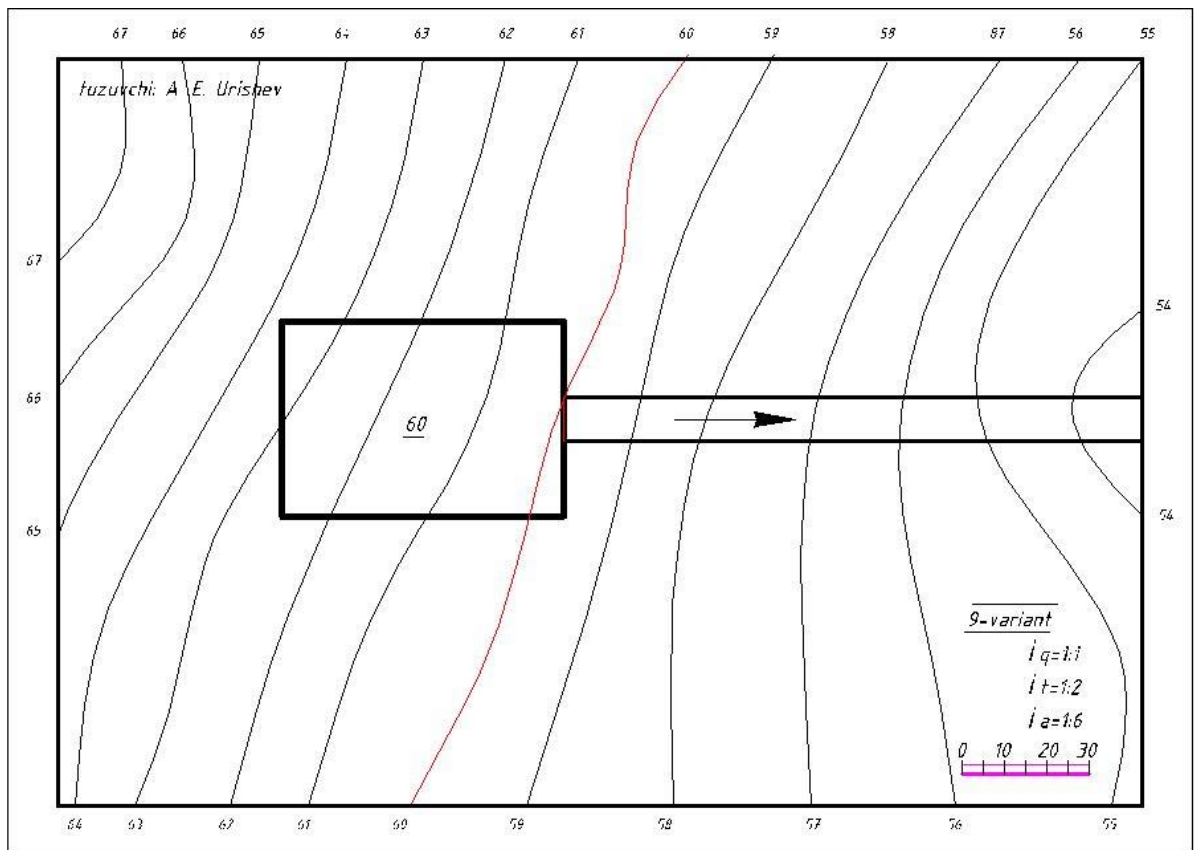


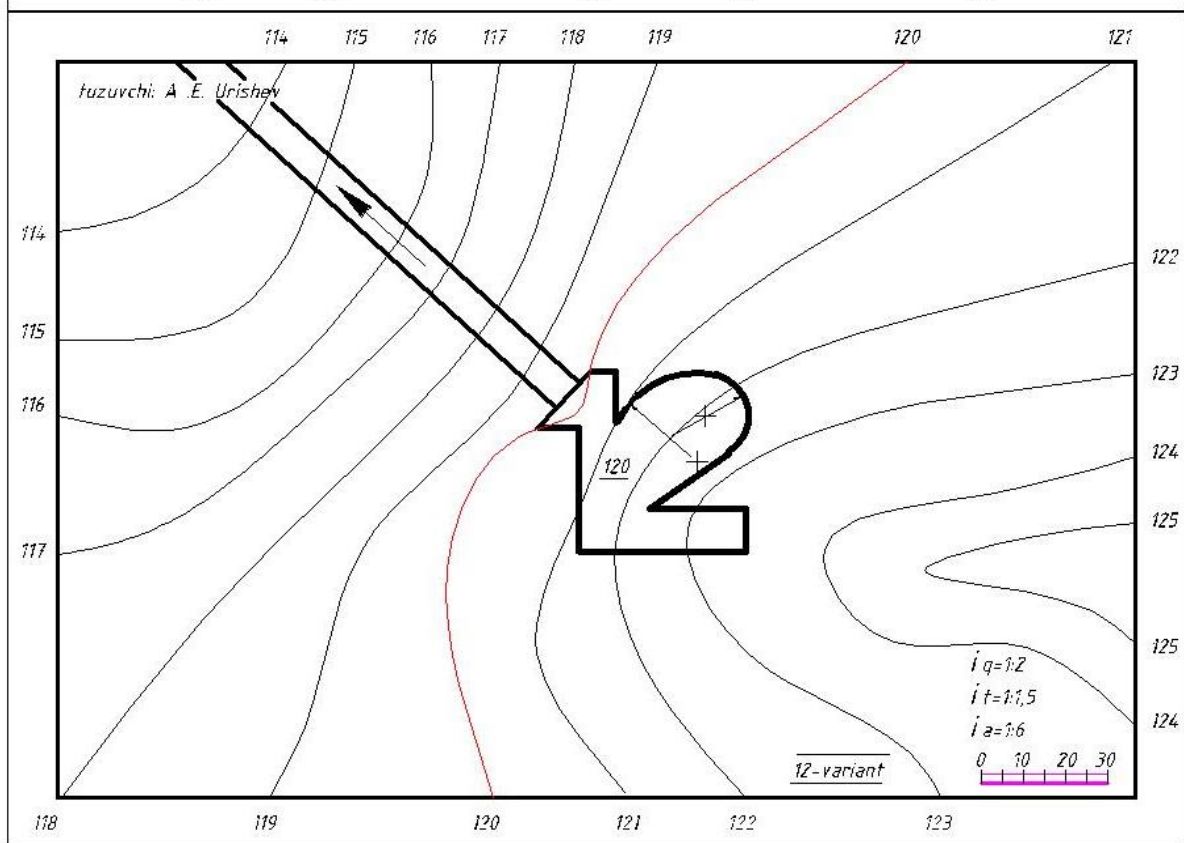
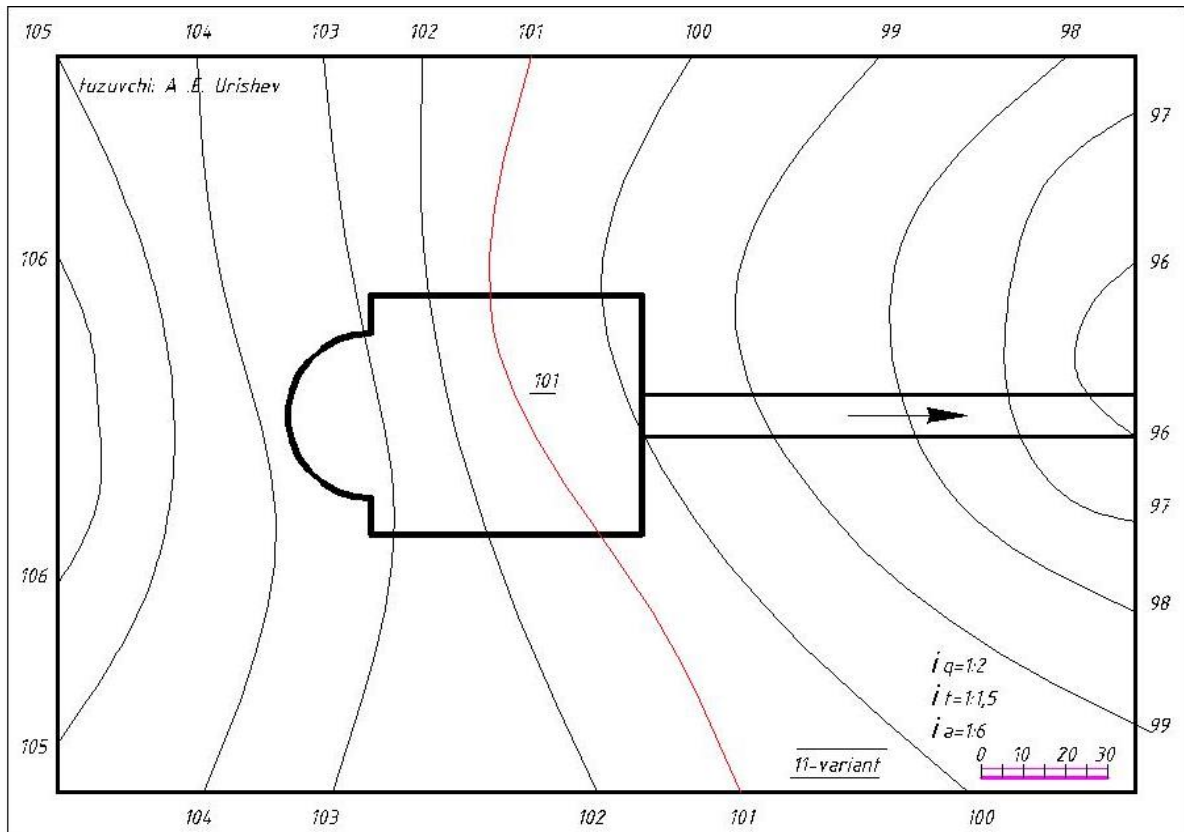




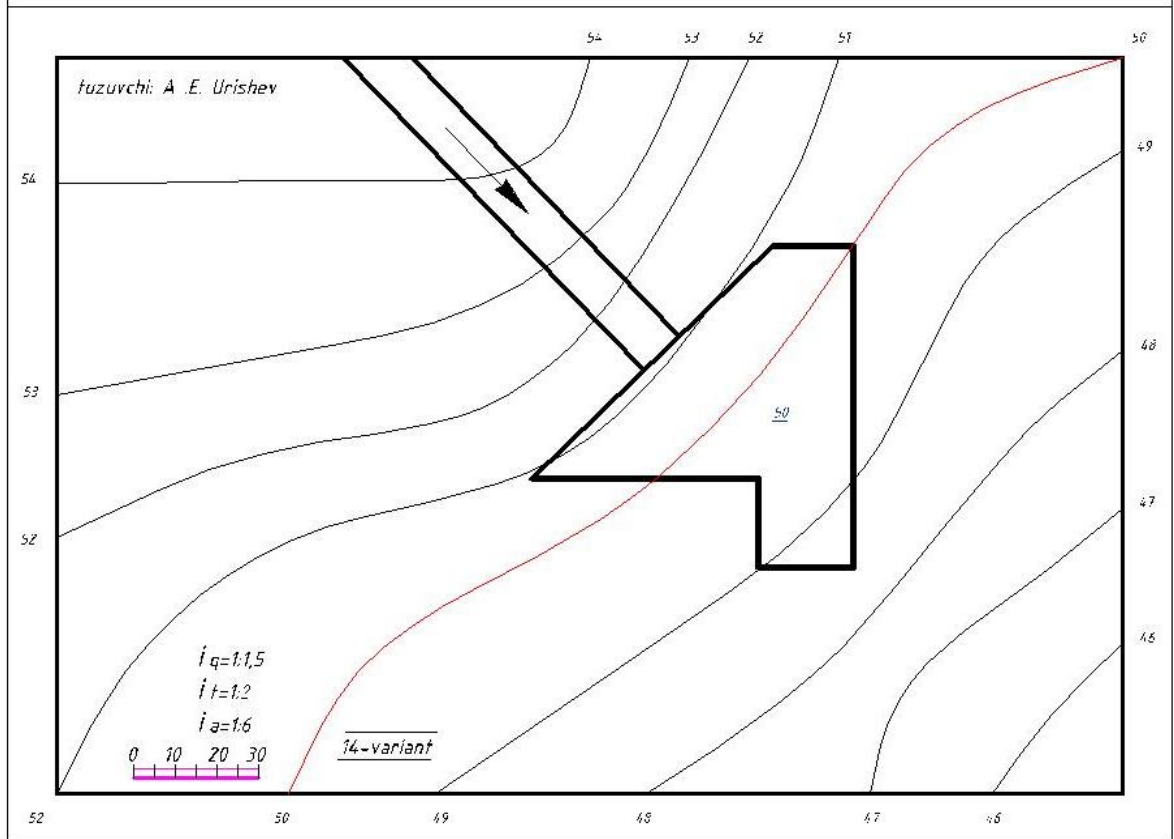
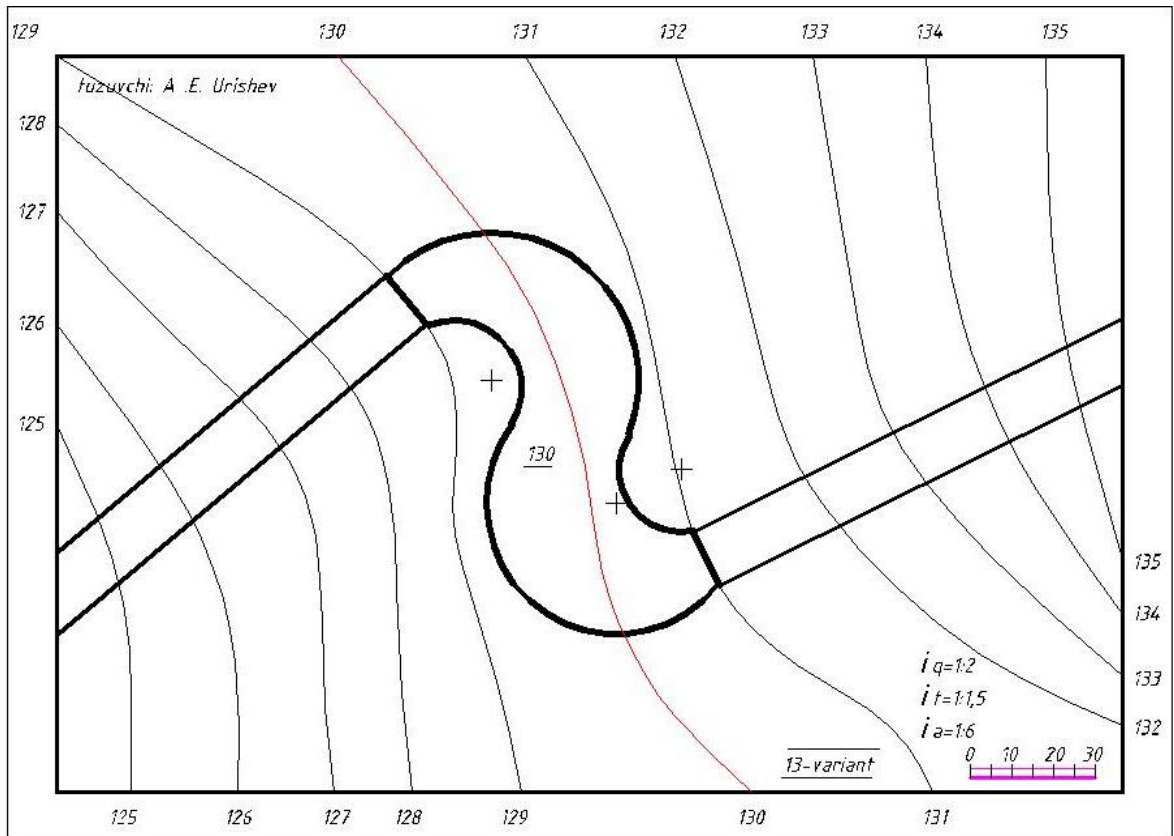


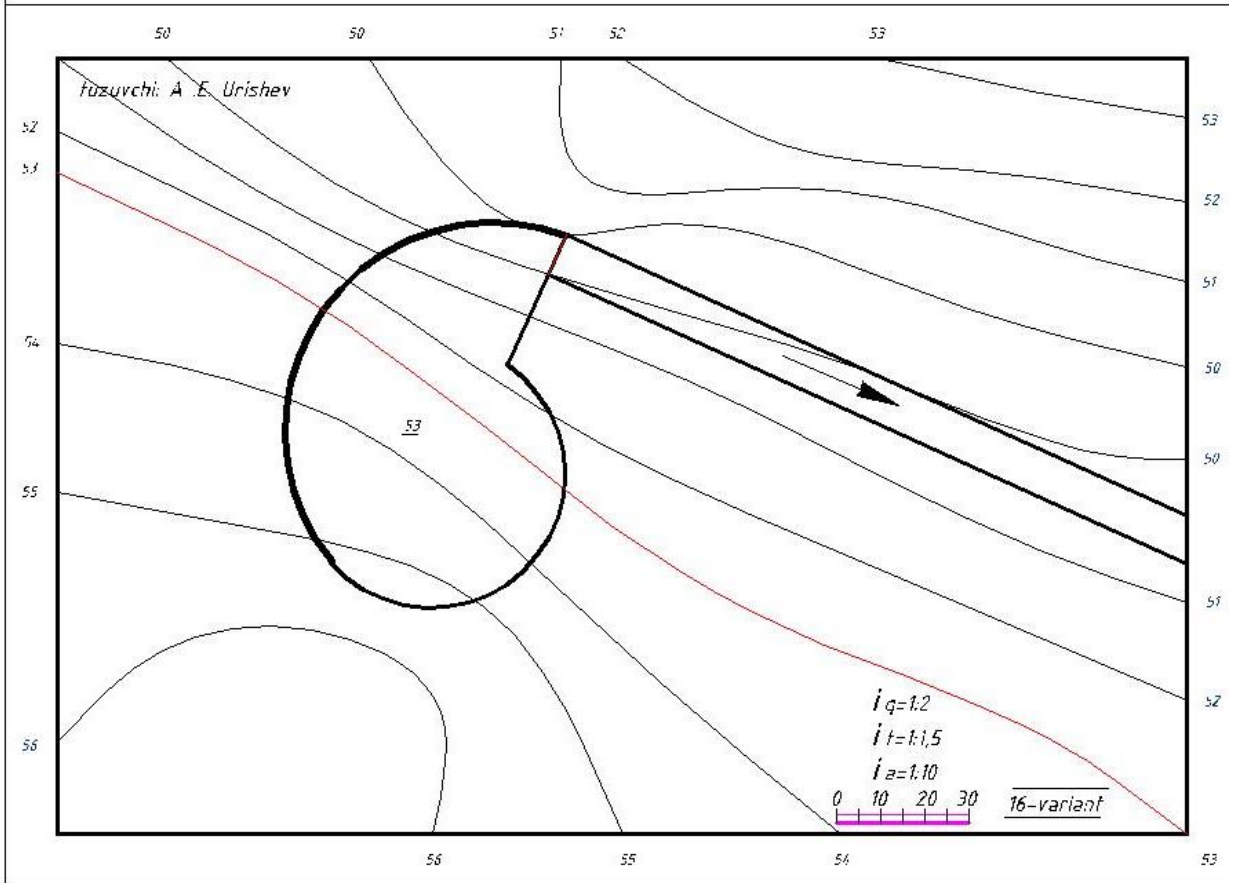
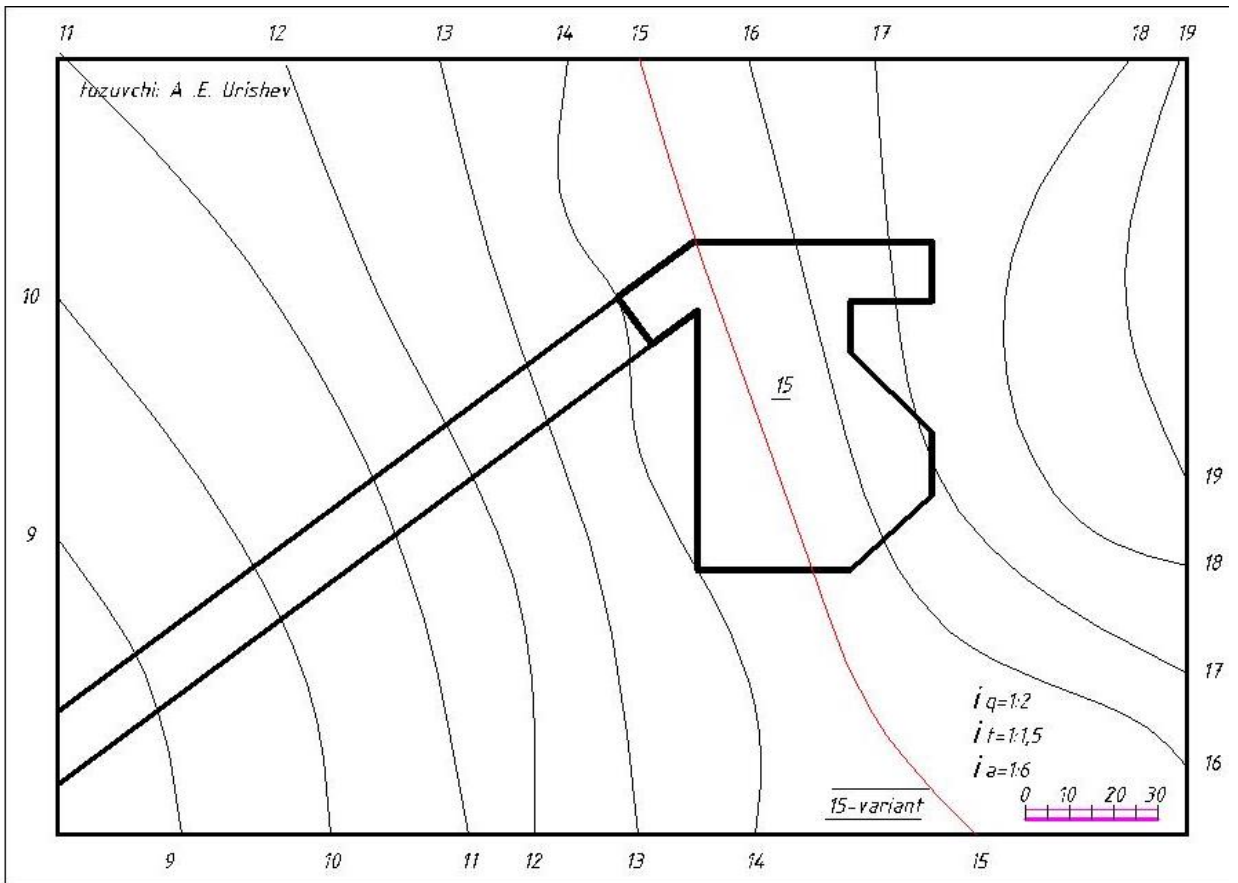




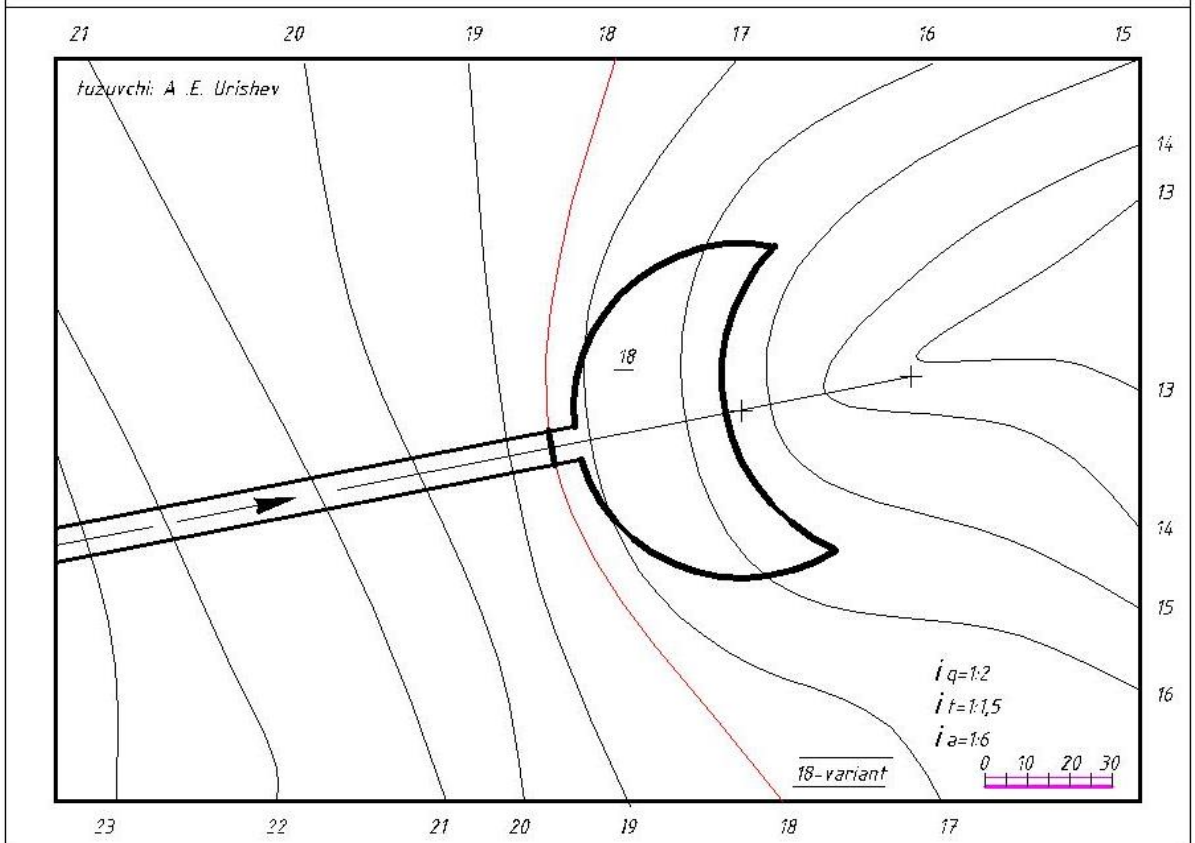
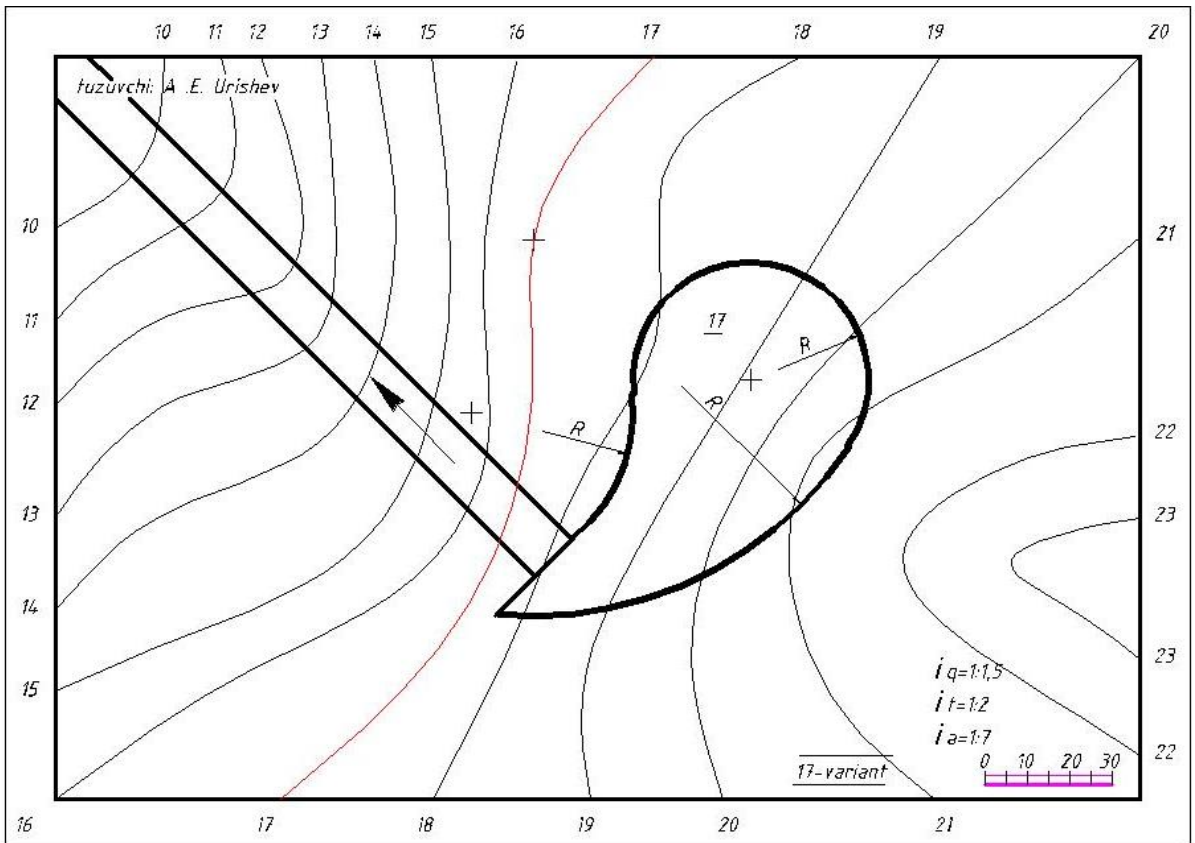


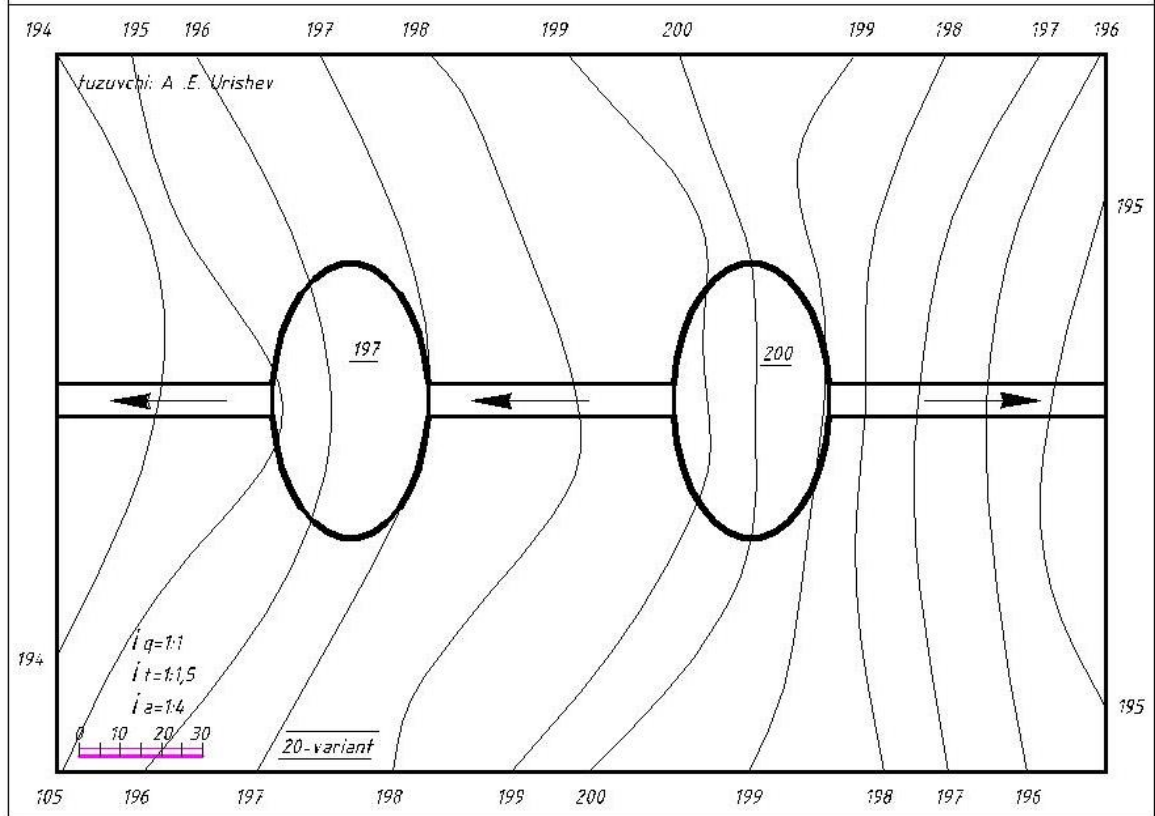
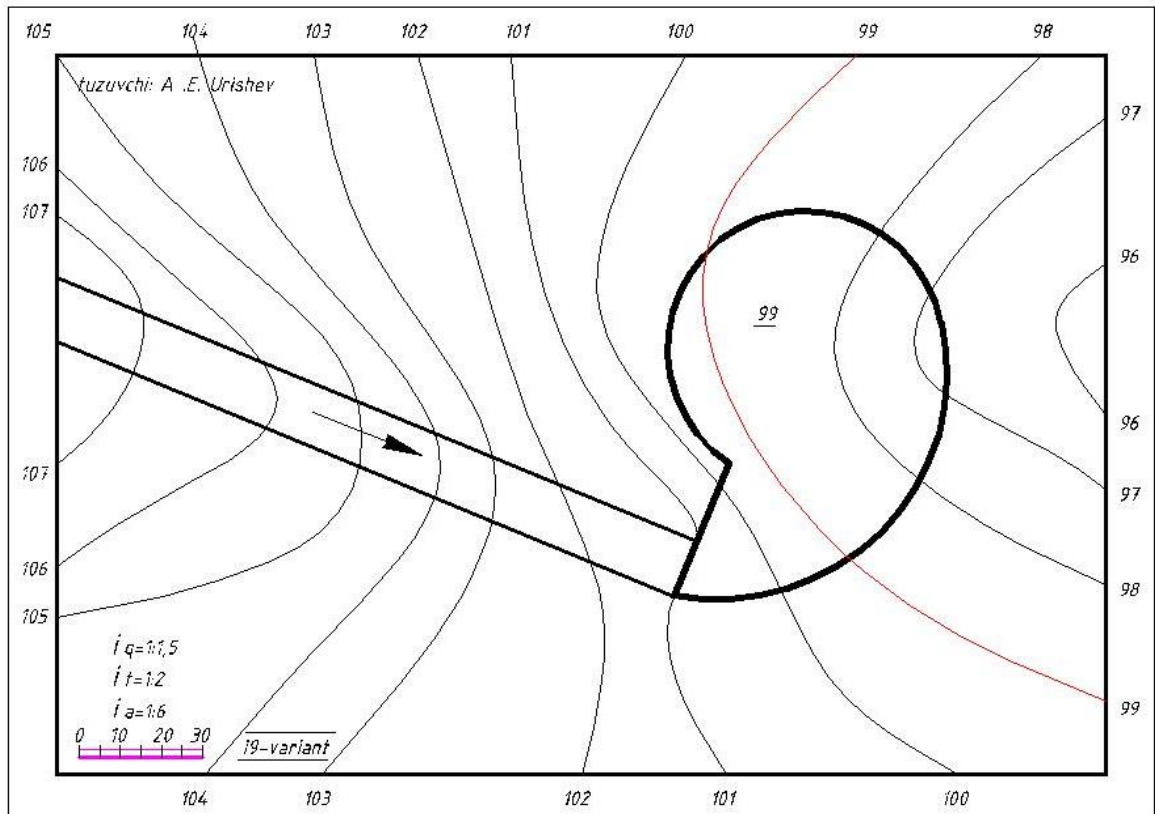




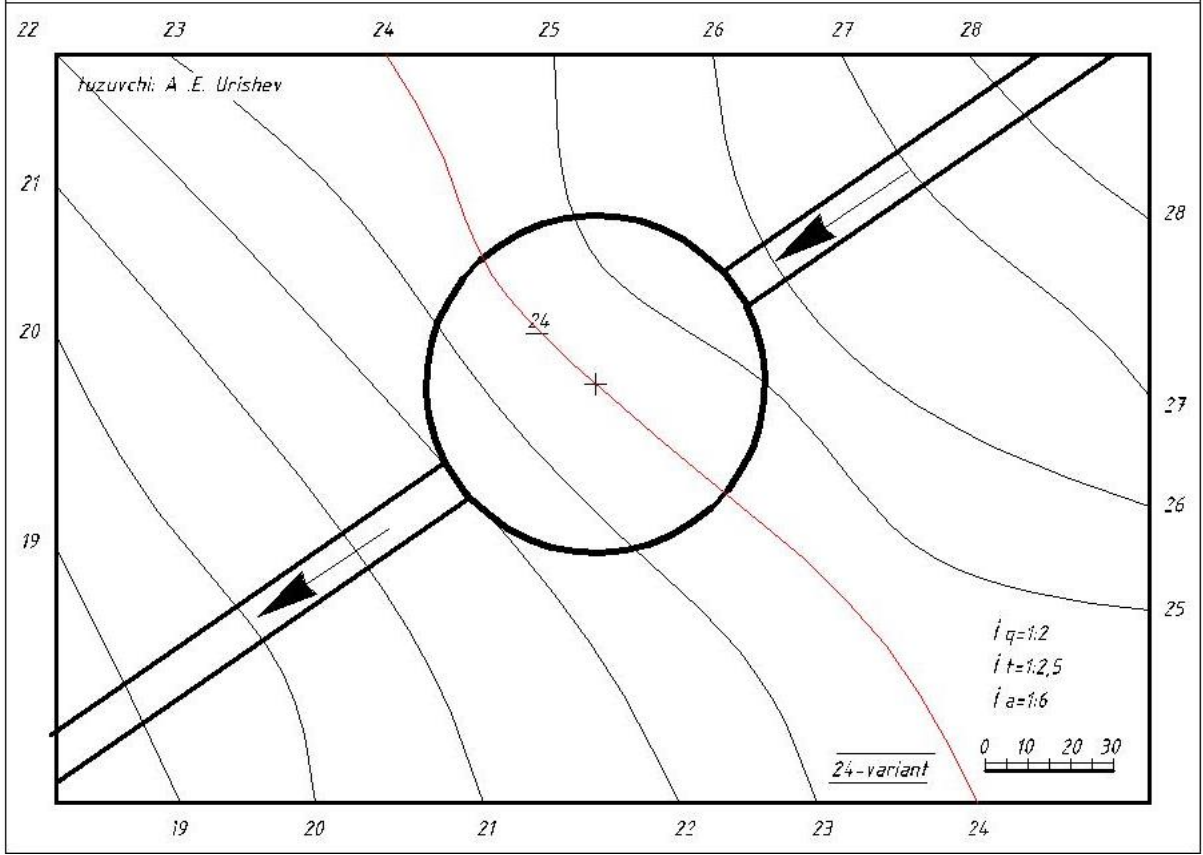
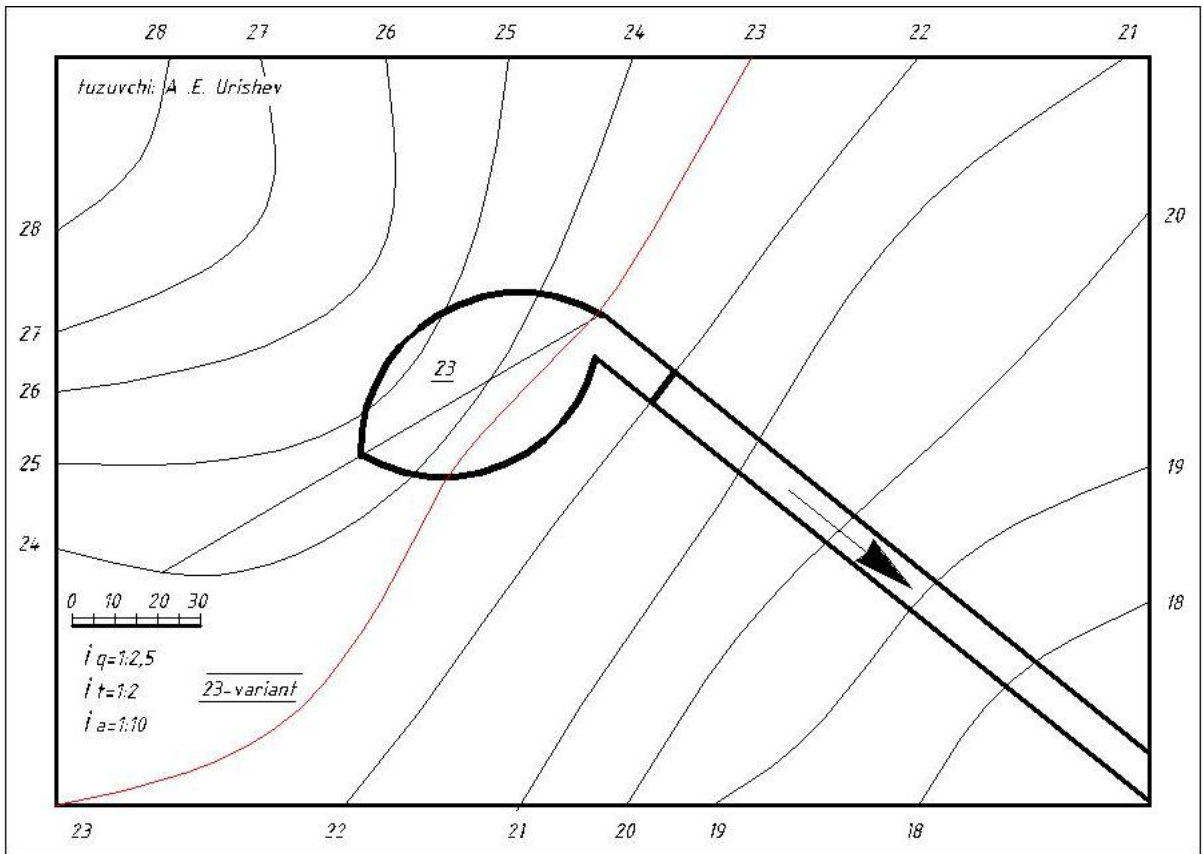












**13-MASHQ**

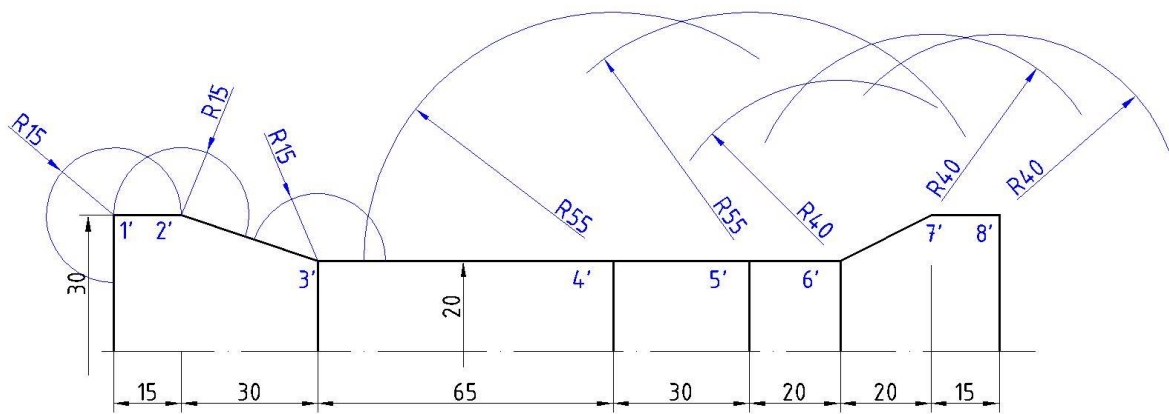
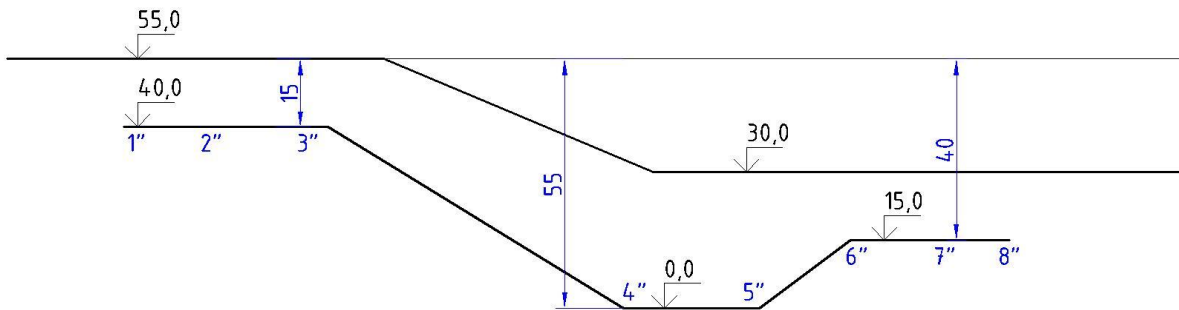
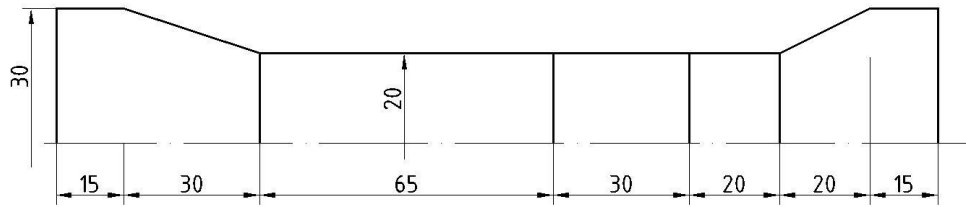
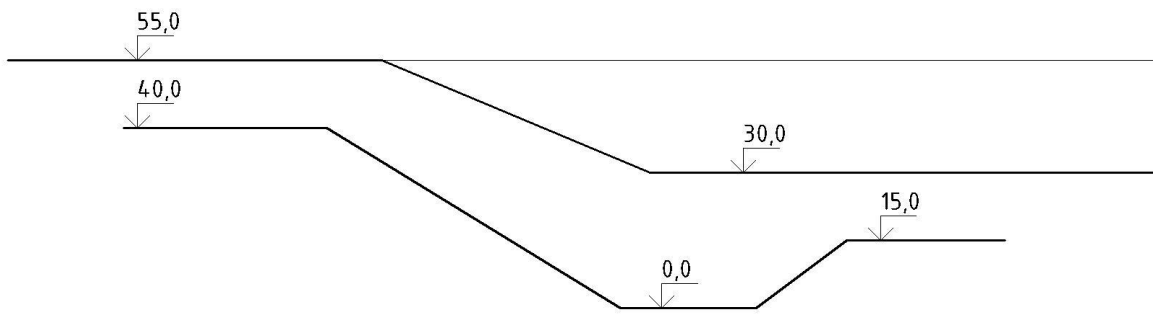
**KOTLOVAN**

**CHIZMASINI**

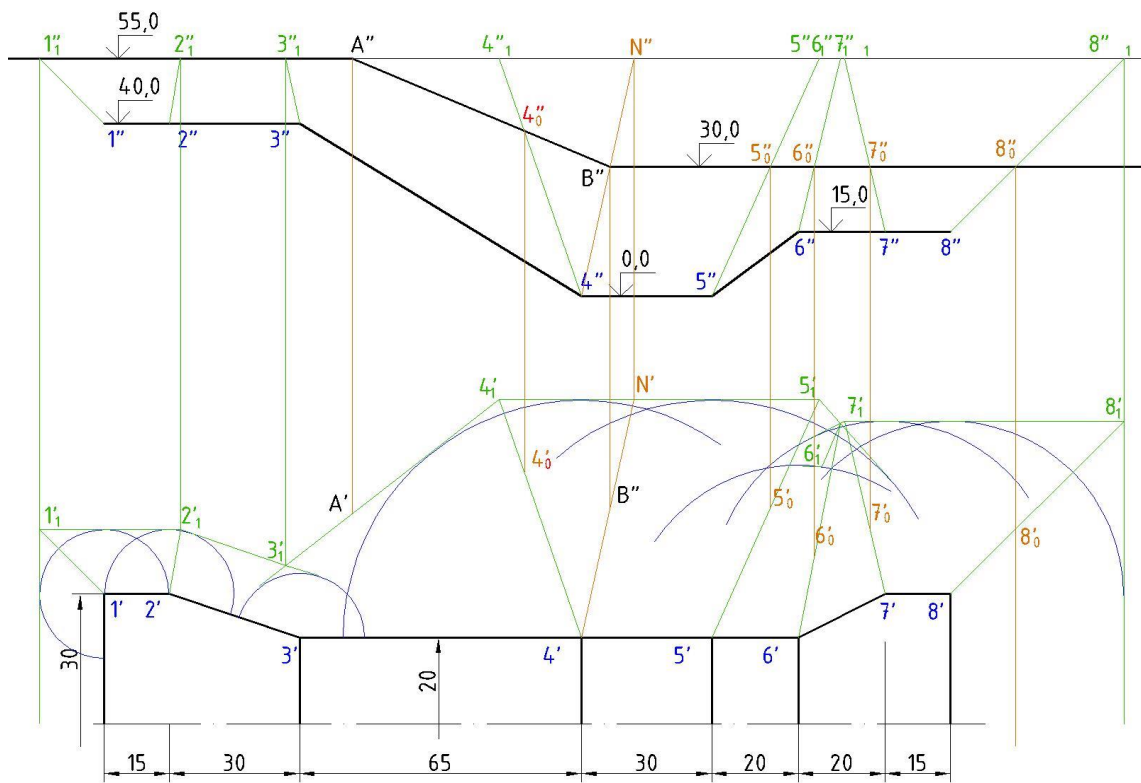
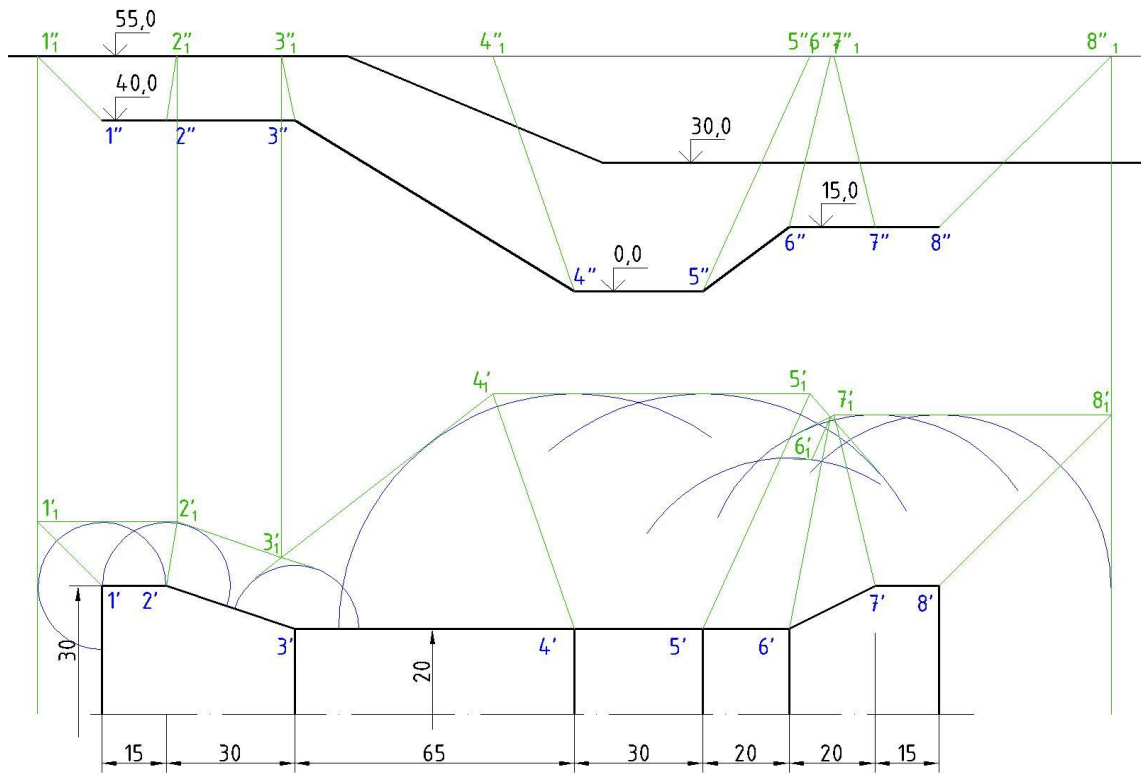
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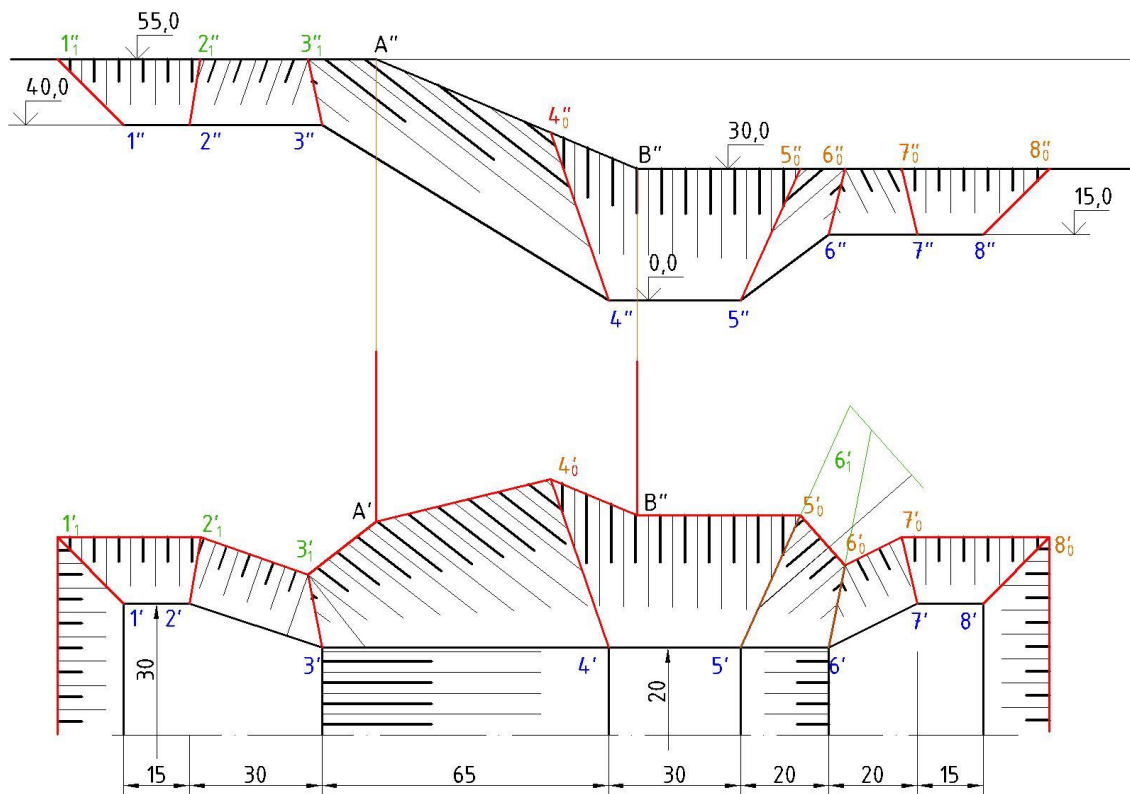
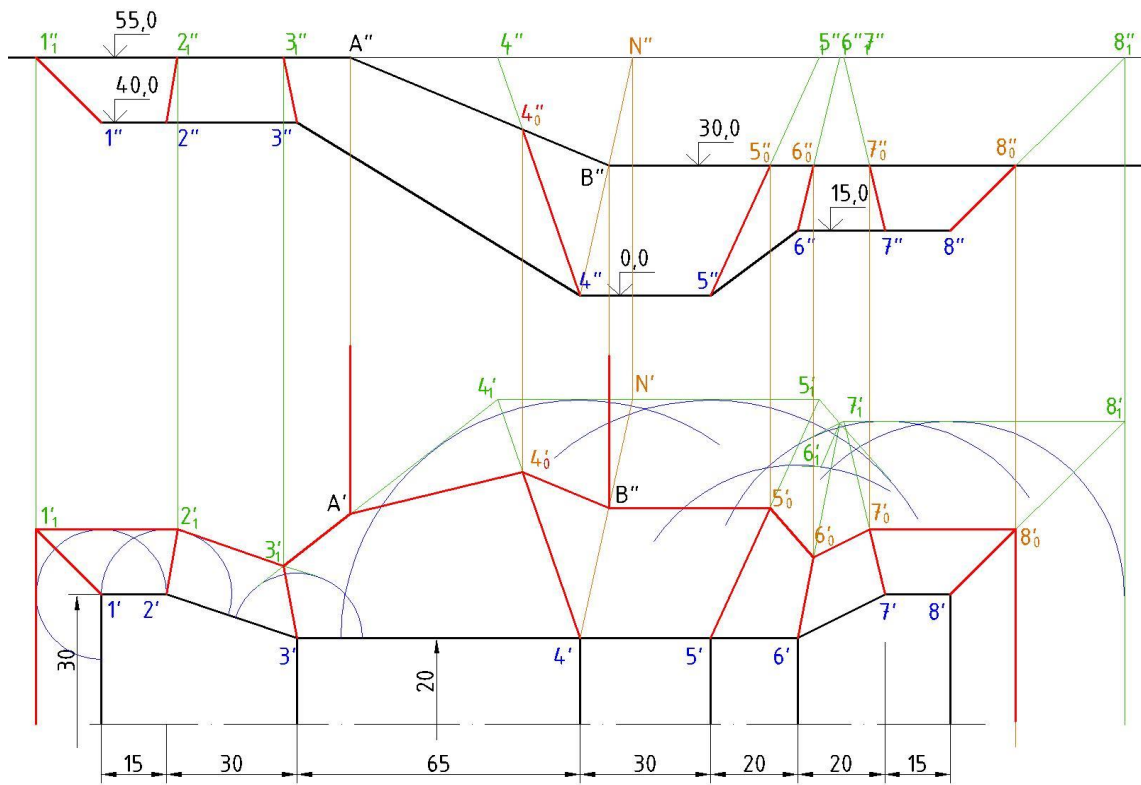
**MAVZUSIGA DOIR**

**VARIANTLAR**

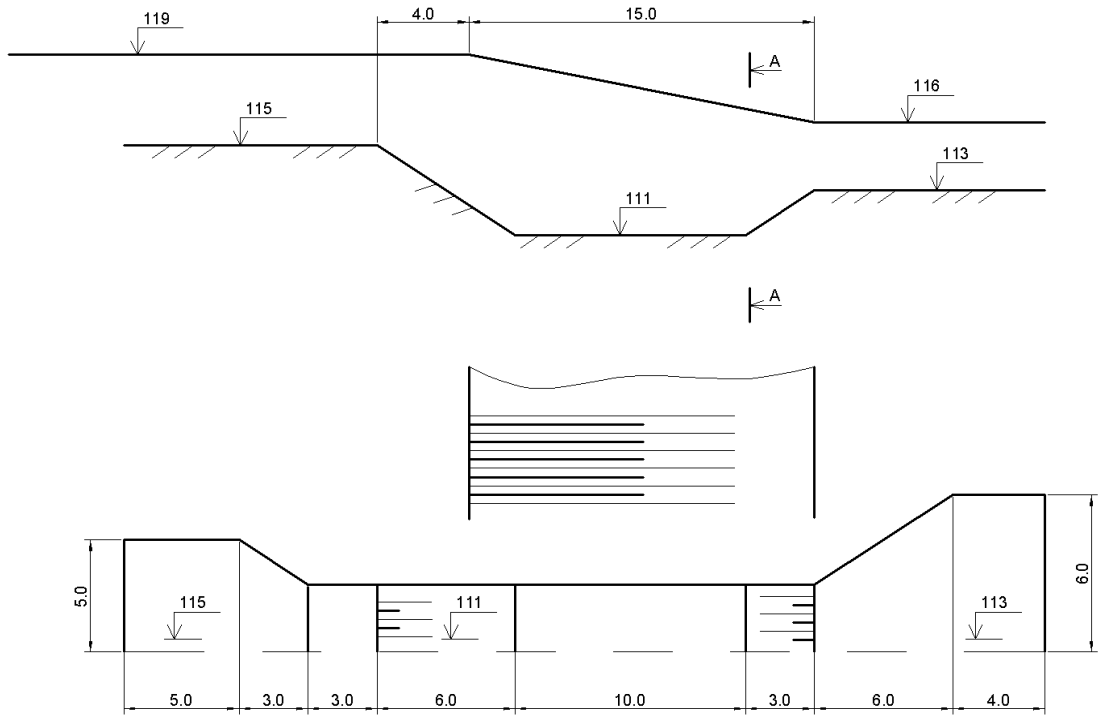






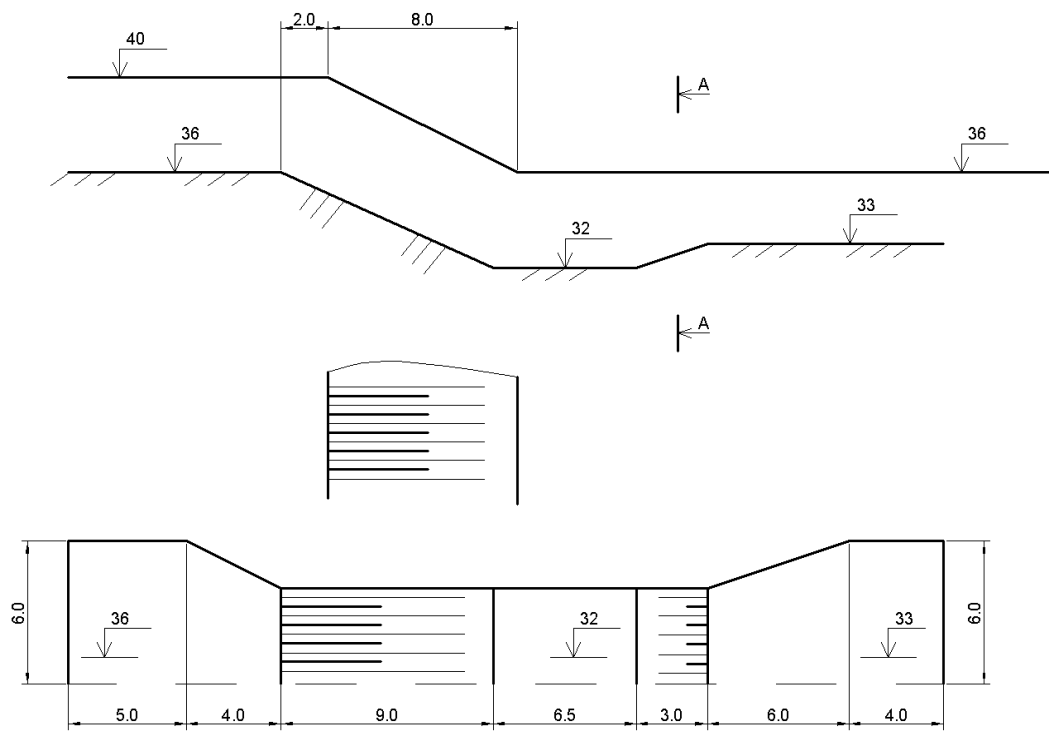






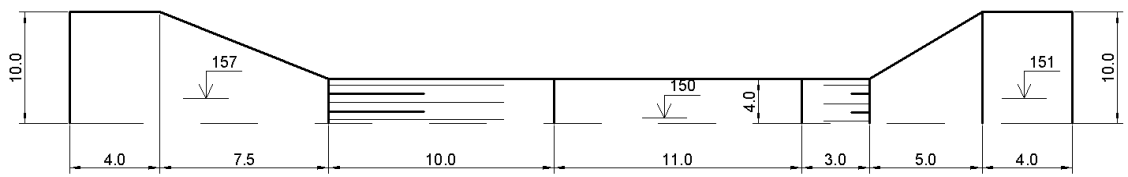
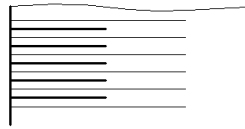
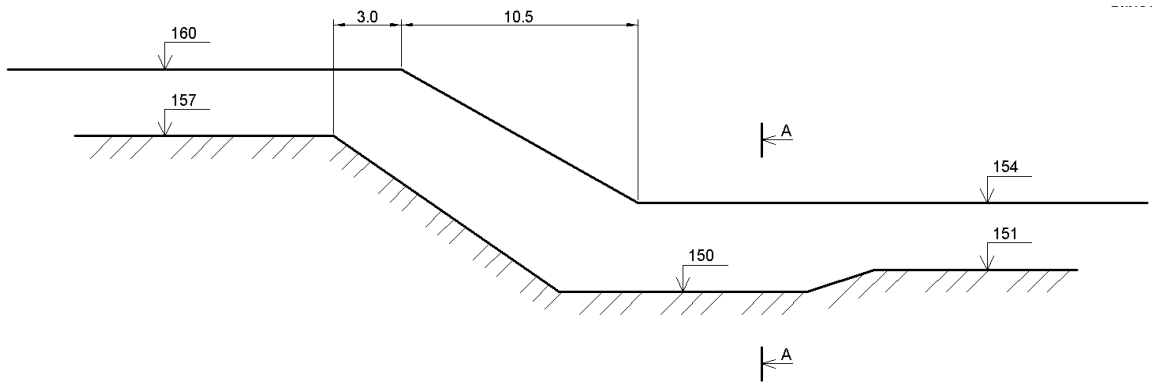
M 1:200

1-variant



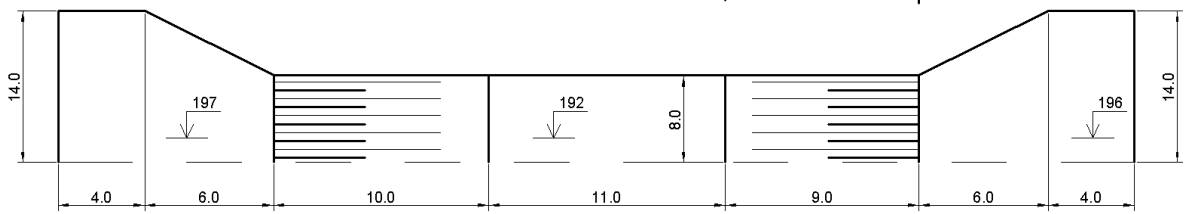
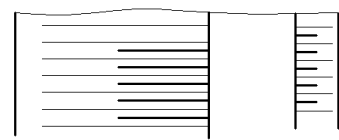
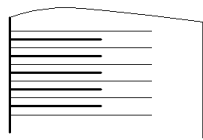
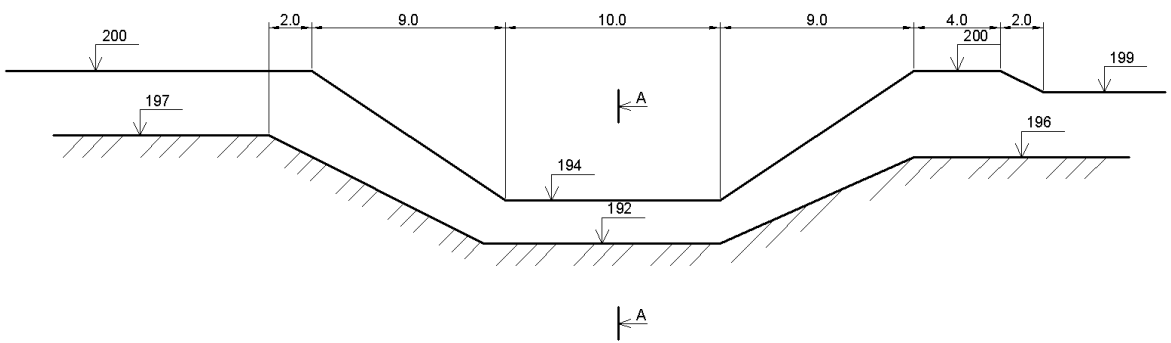
M 1:200

2-variant



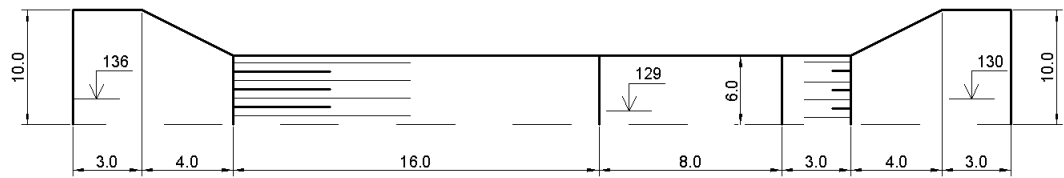
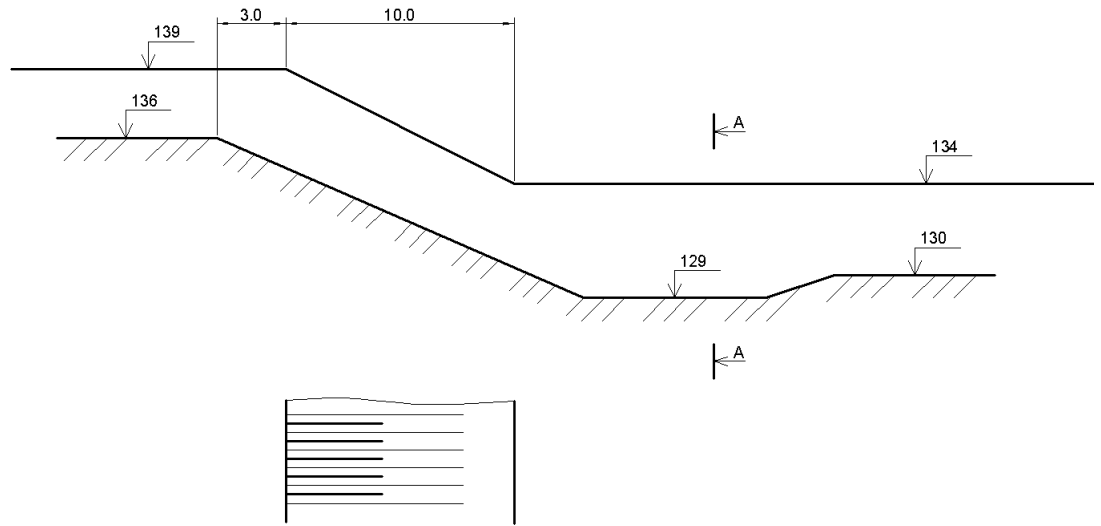
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3-variant



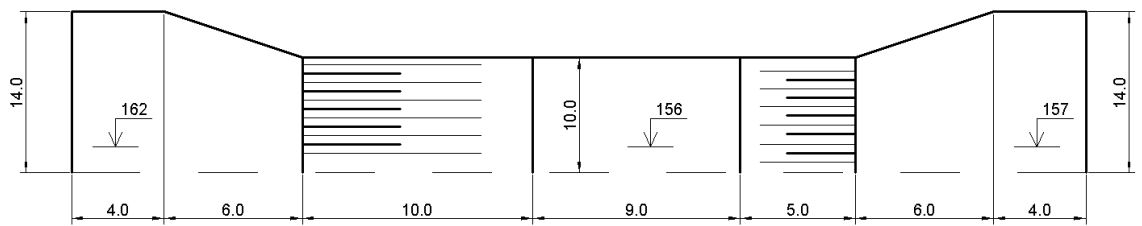
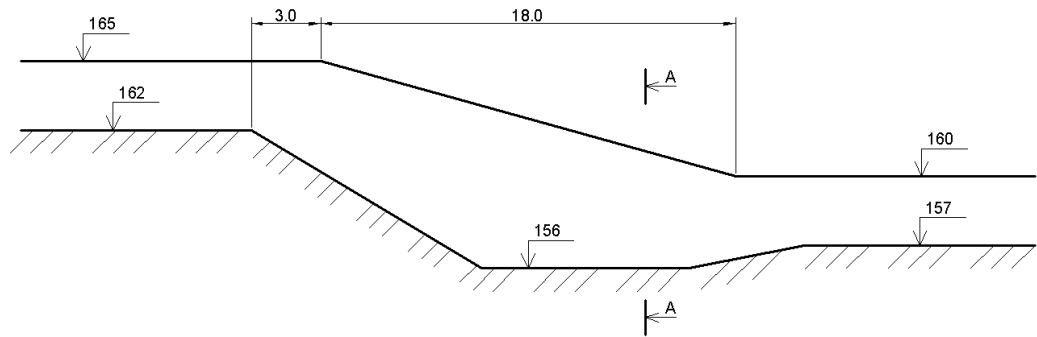
M 1:200

4-variant



M 1:200

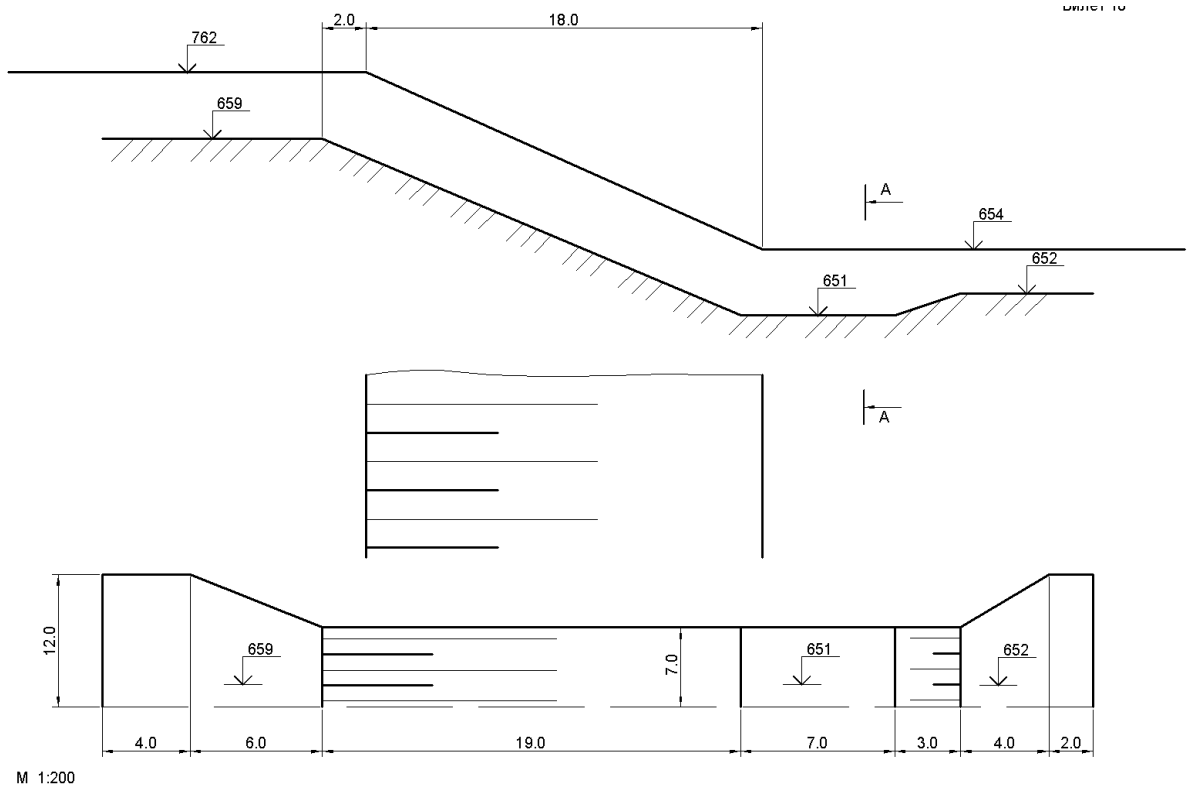
5-variant



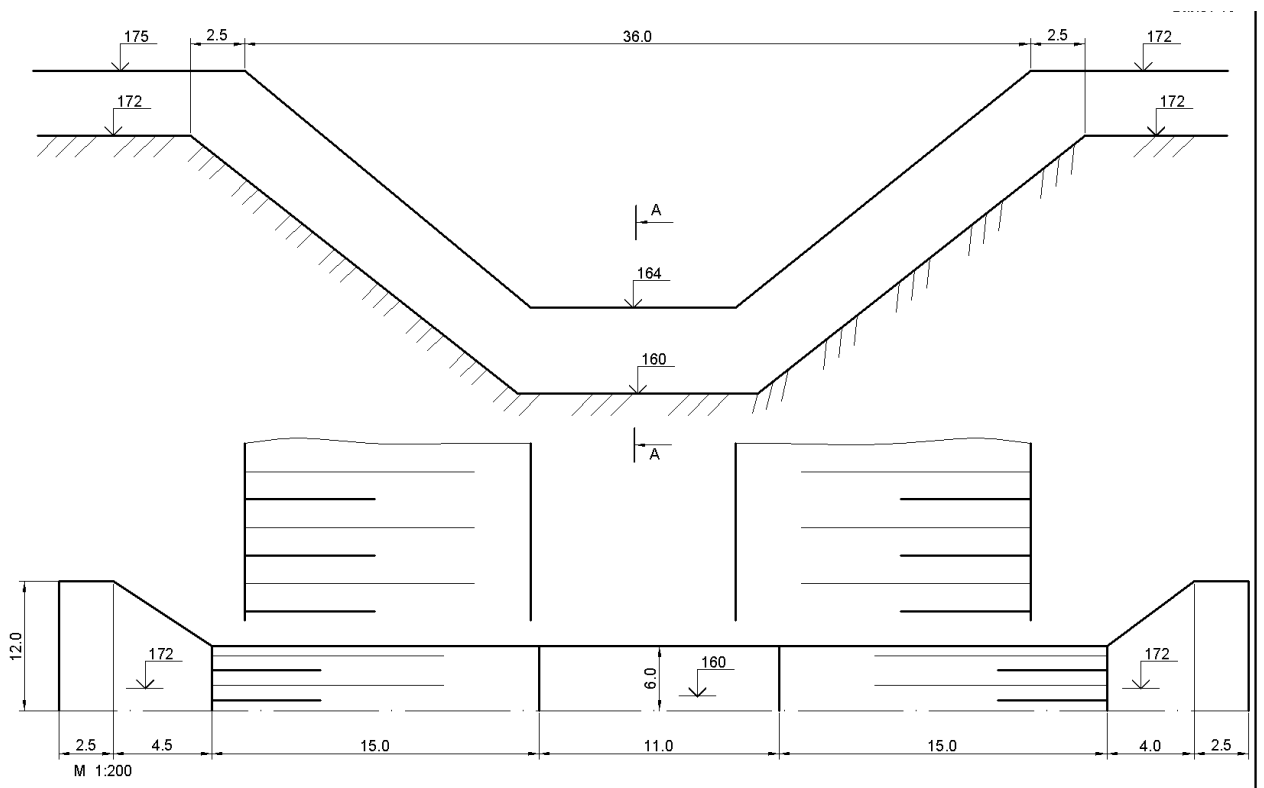
M 1:200

6-variant

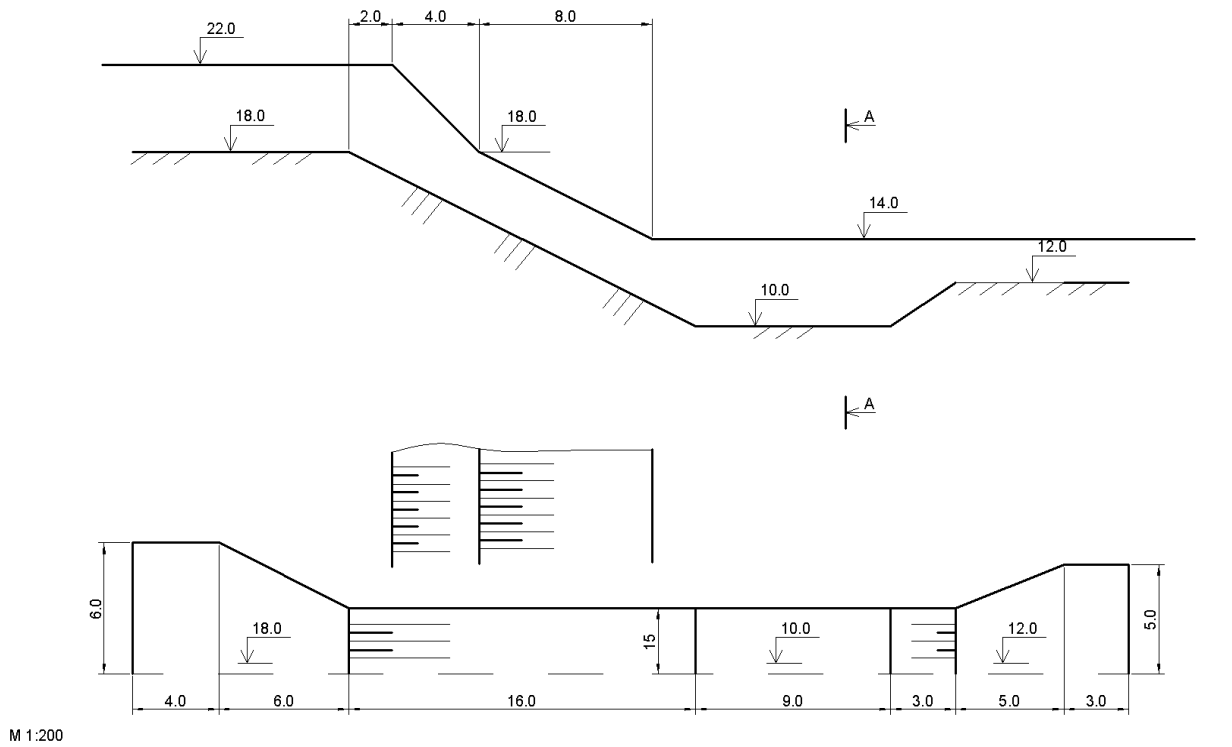




9-variant

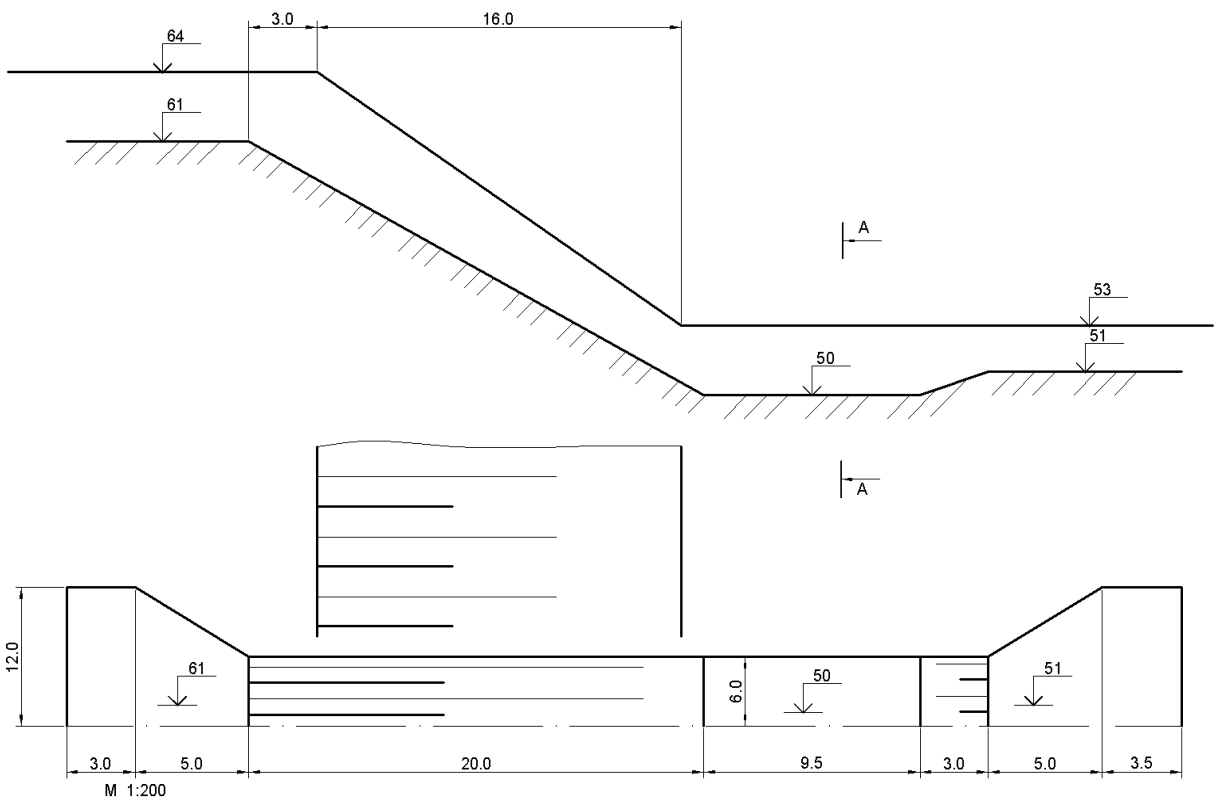


10-variant



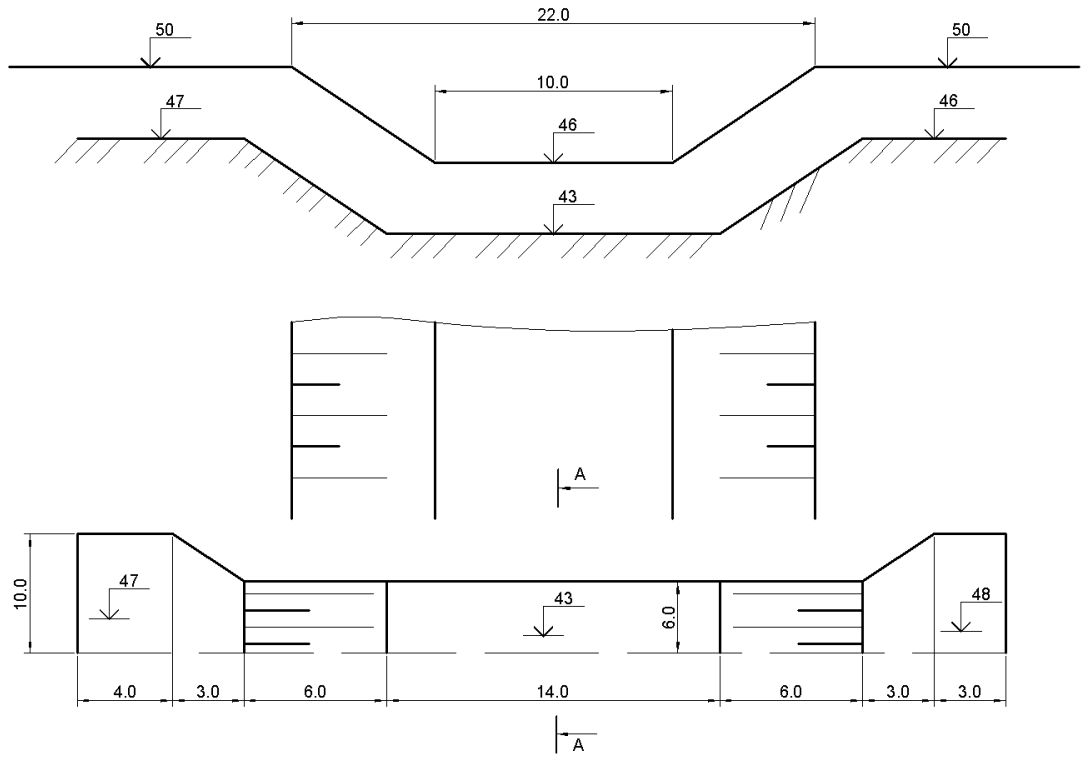
M 1:200

11-variant

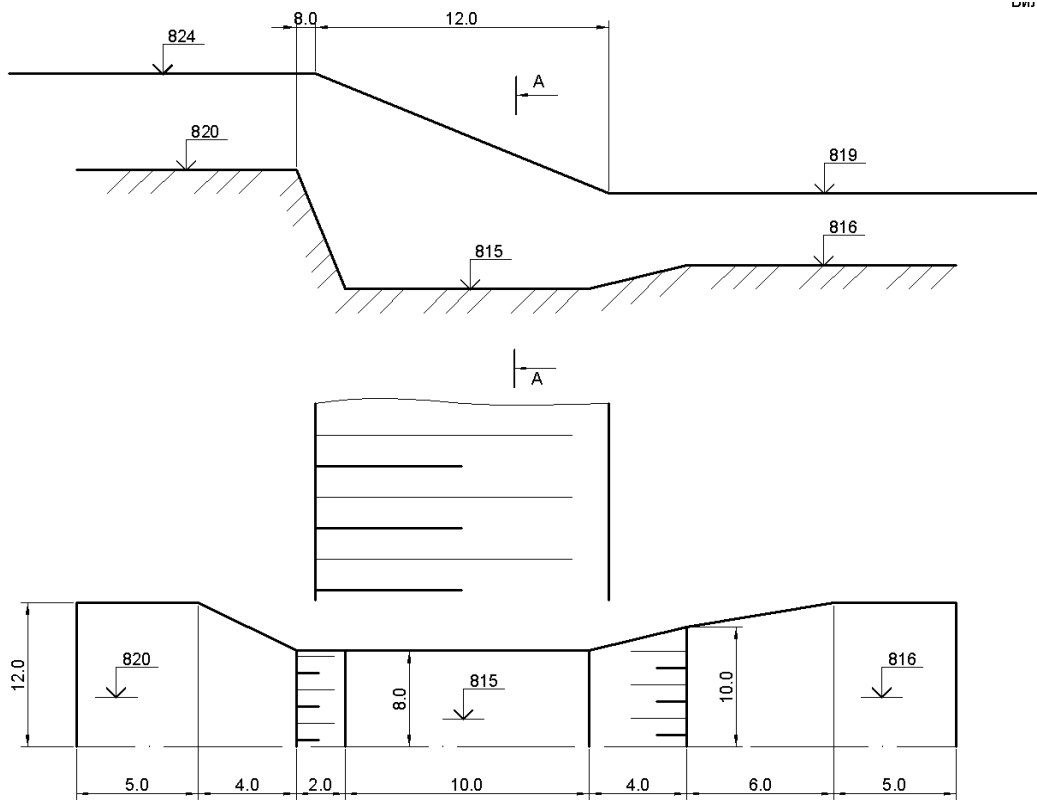


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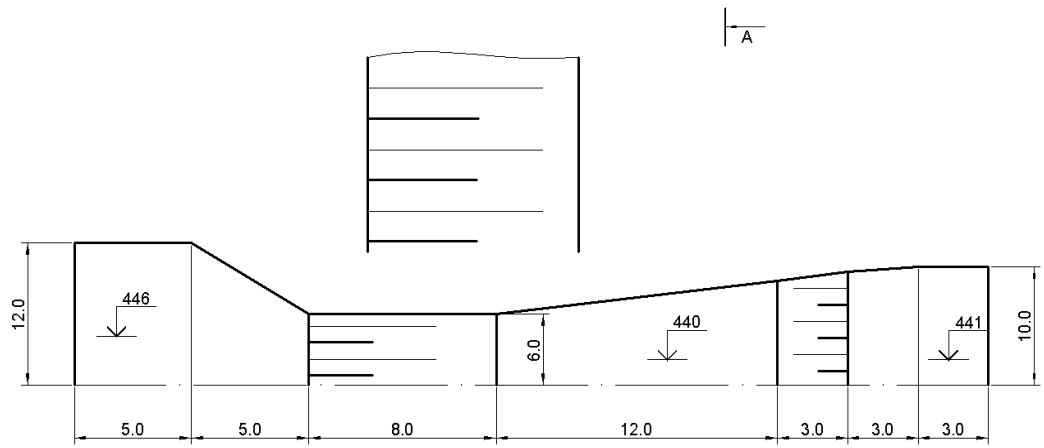
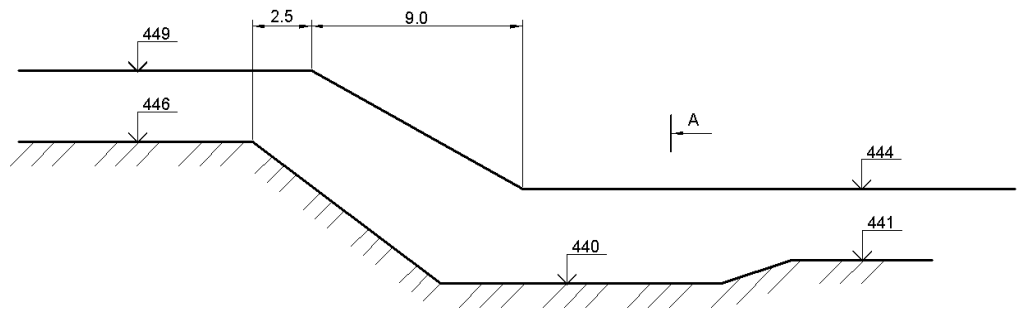
12-variant



13-variant

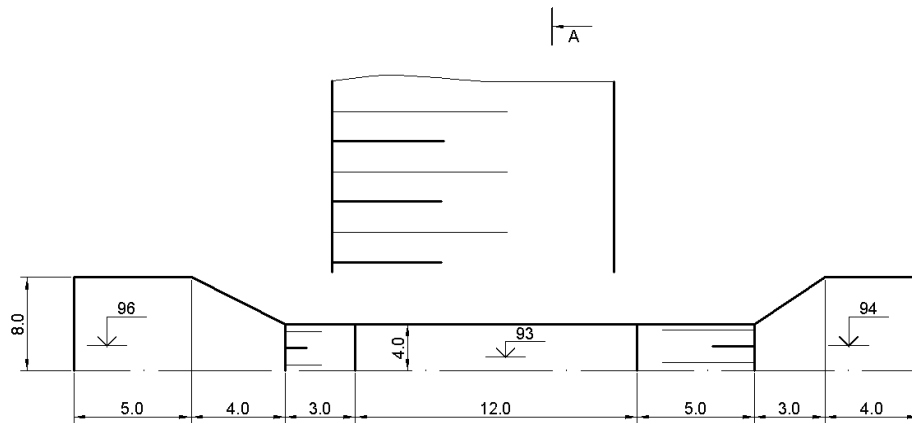
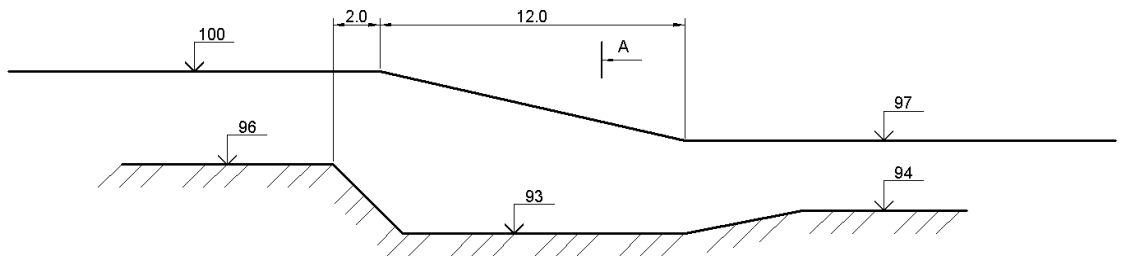


14-variant



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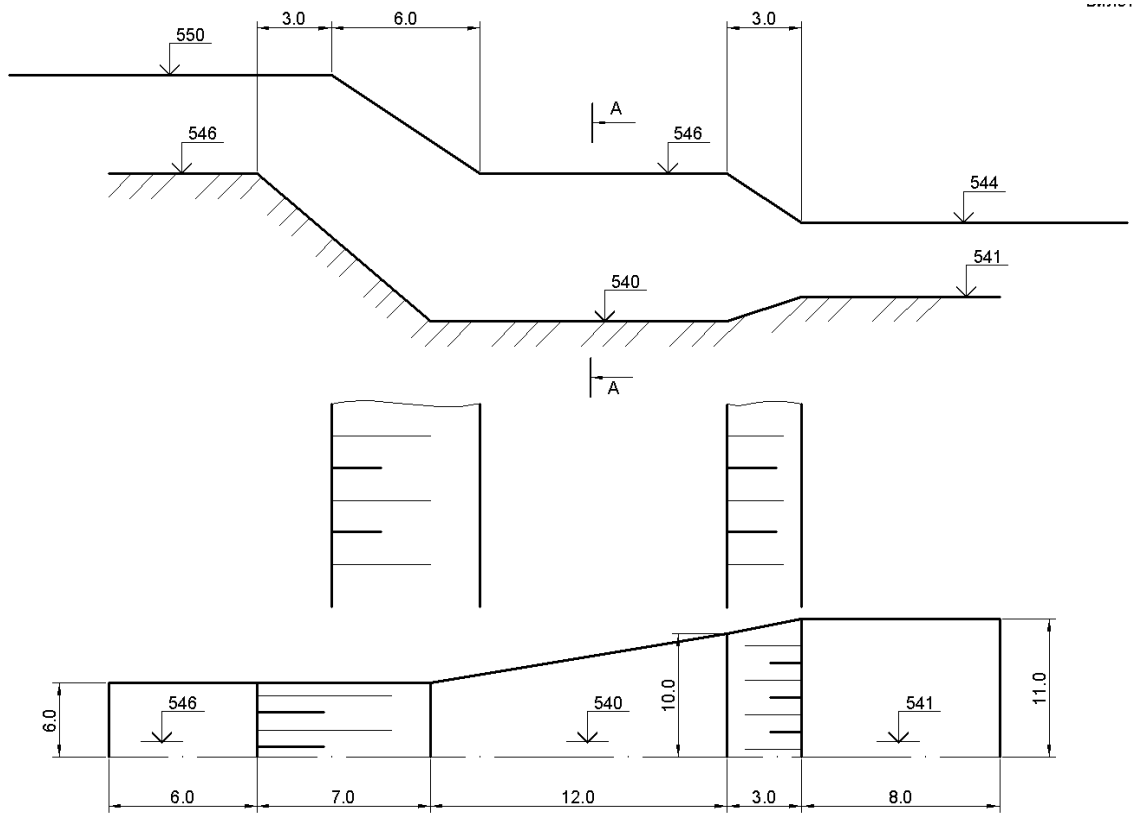
15-variant



M 1:200

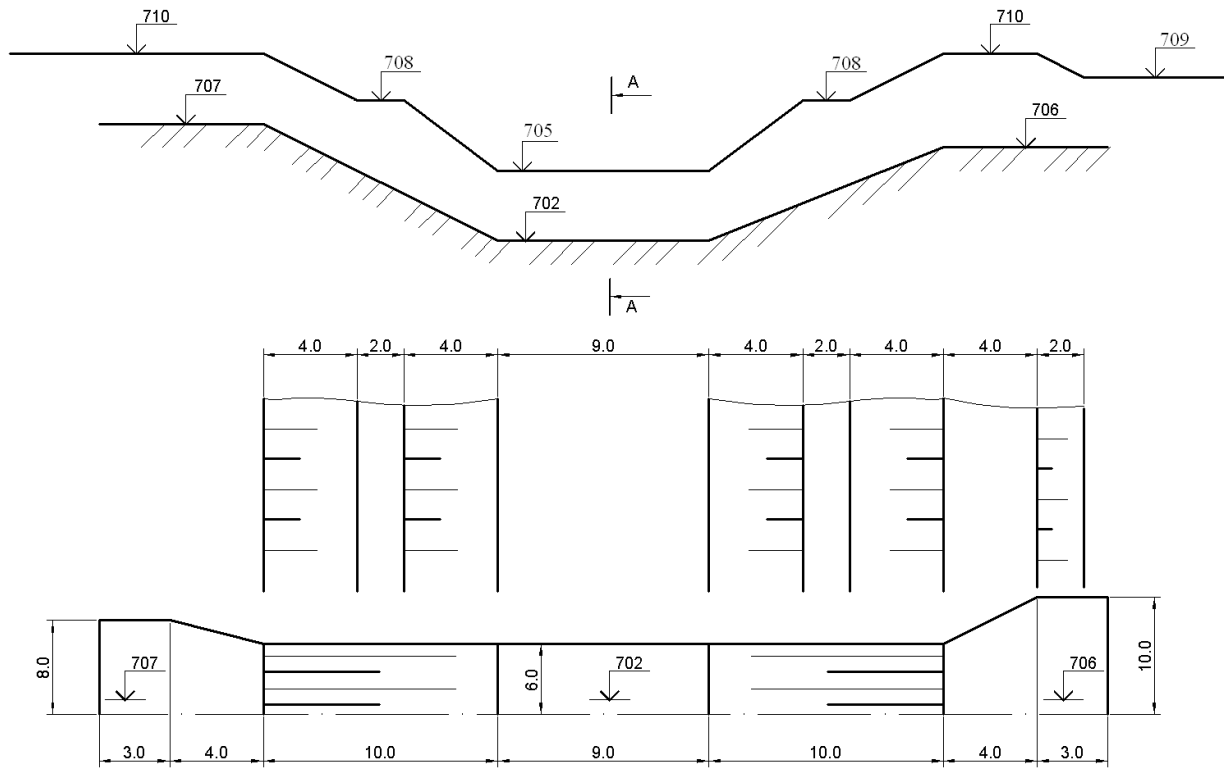
16-variant





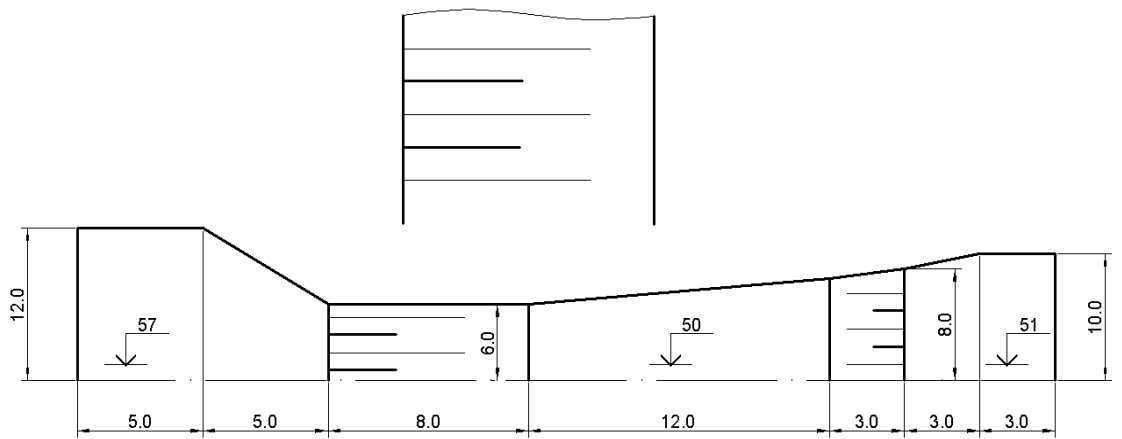
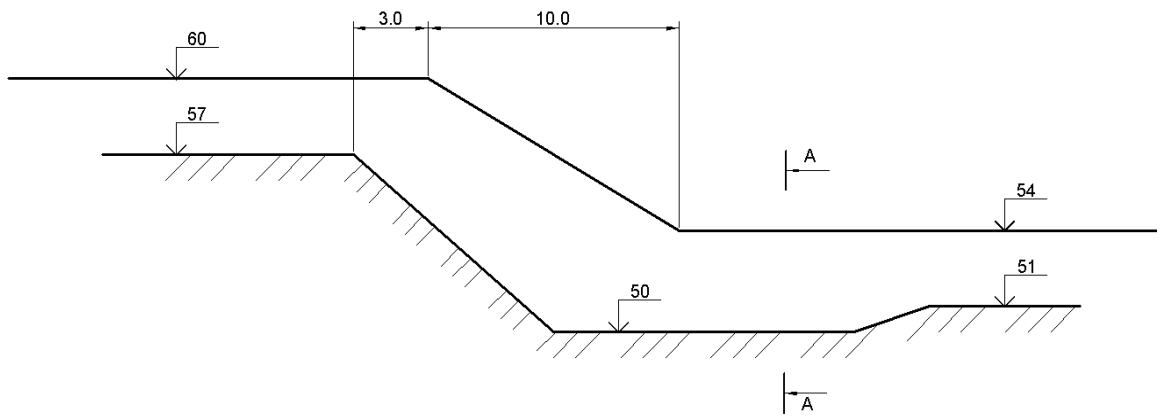
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17-variant



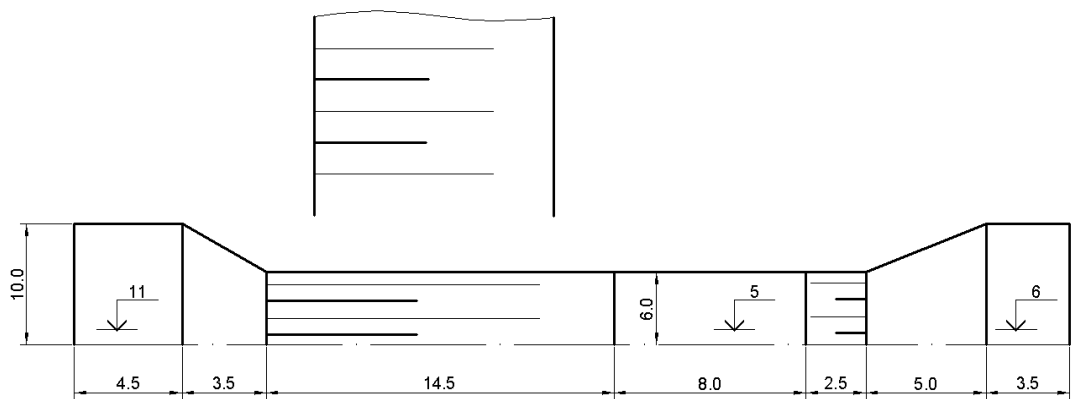
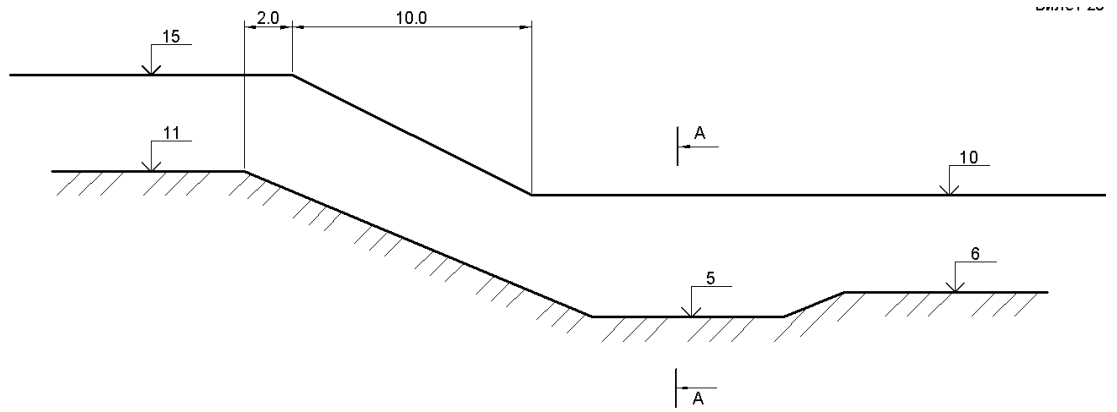
M 1:200

18-variant



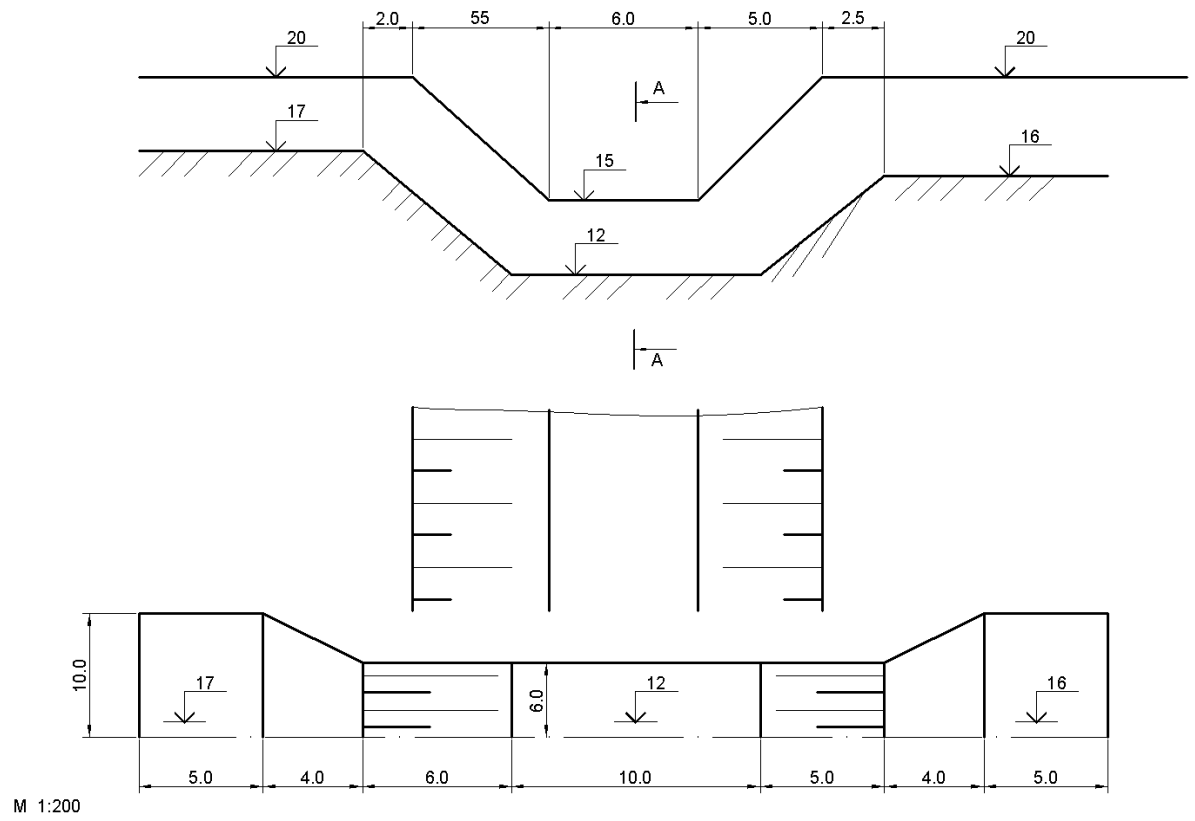
M 1:200

19-variant

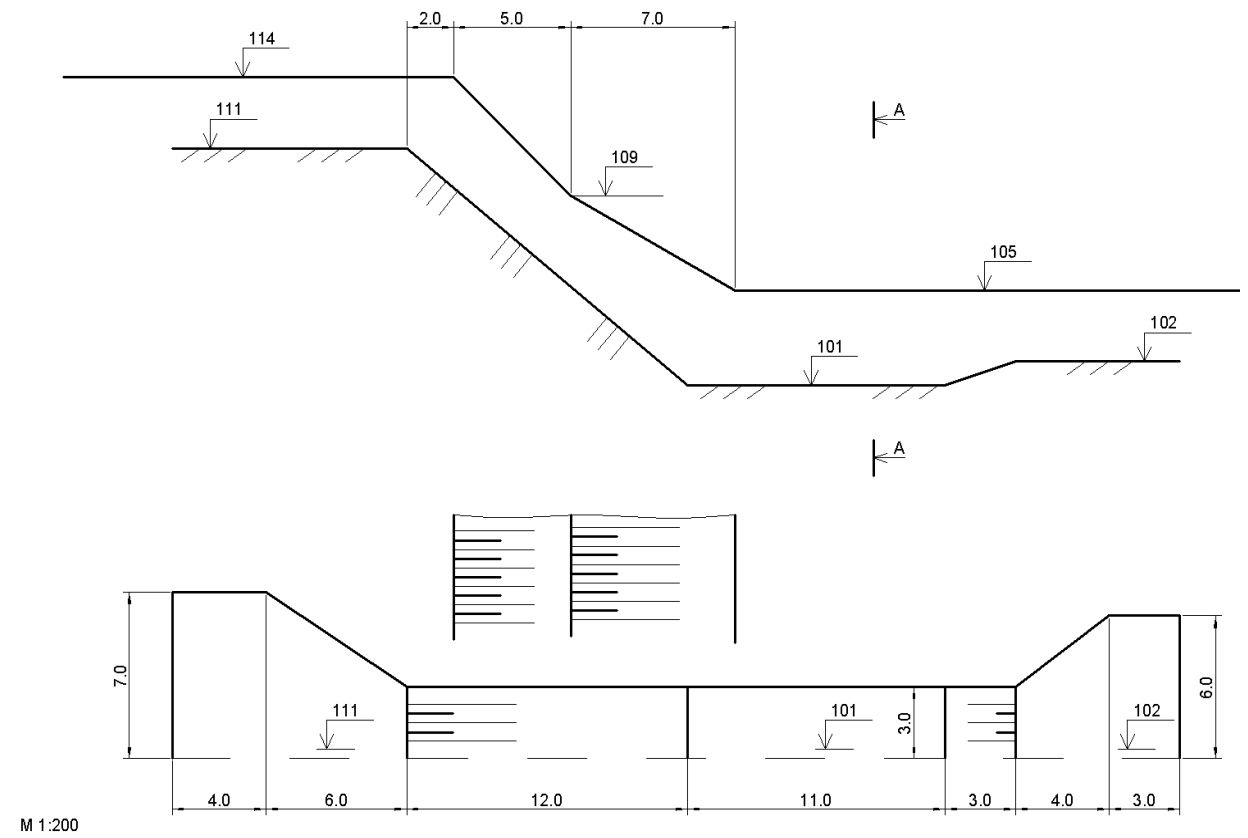


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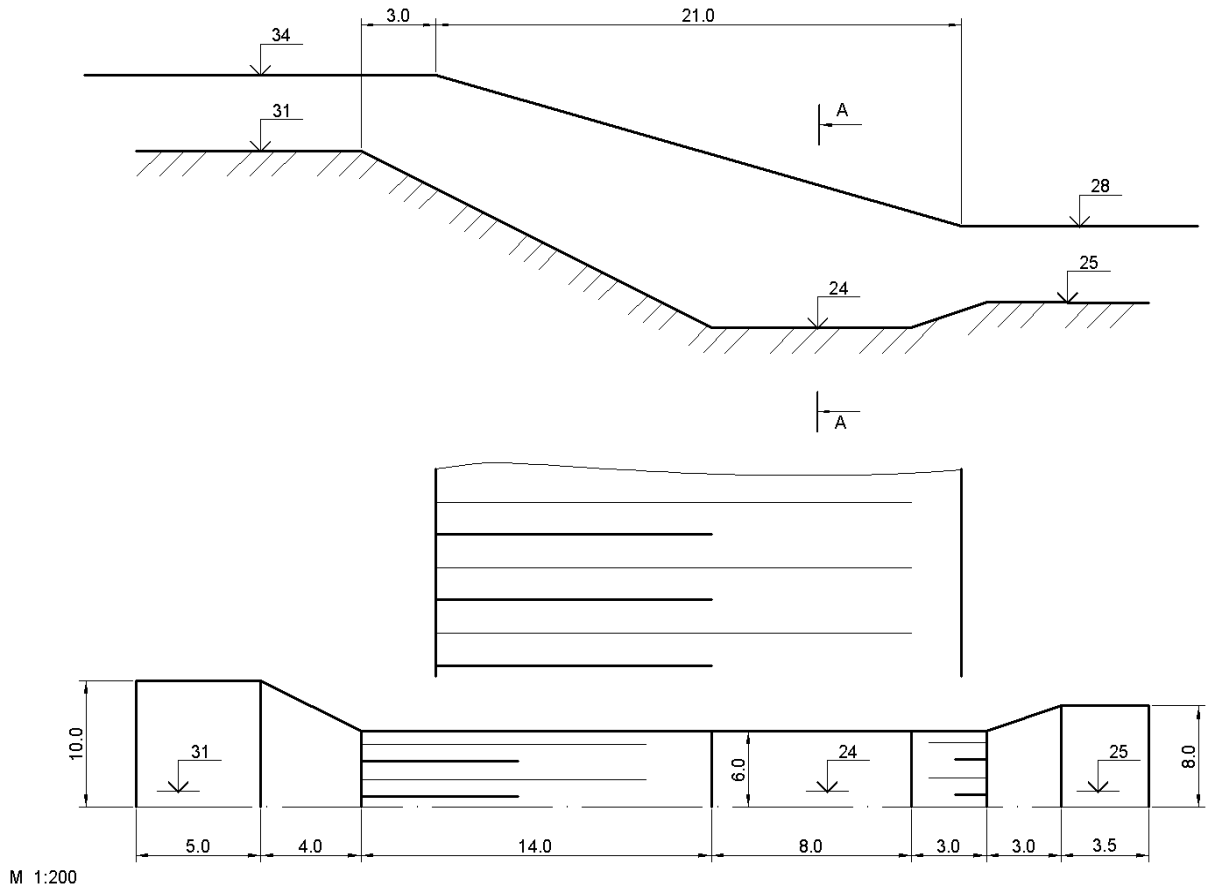
20-variant



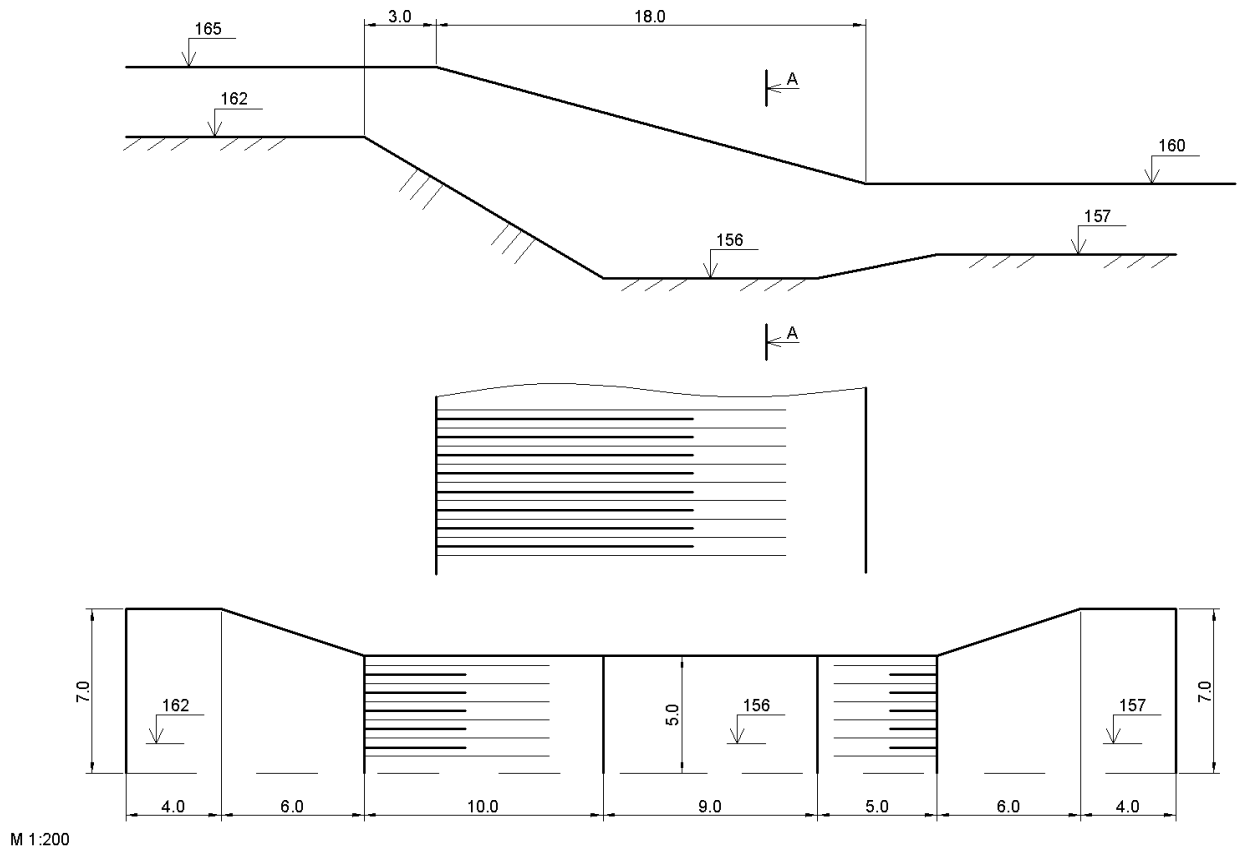
21-variant



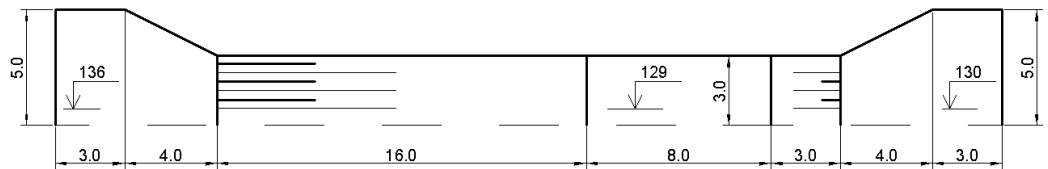
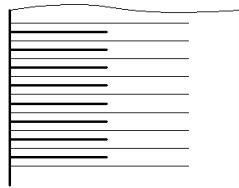
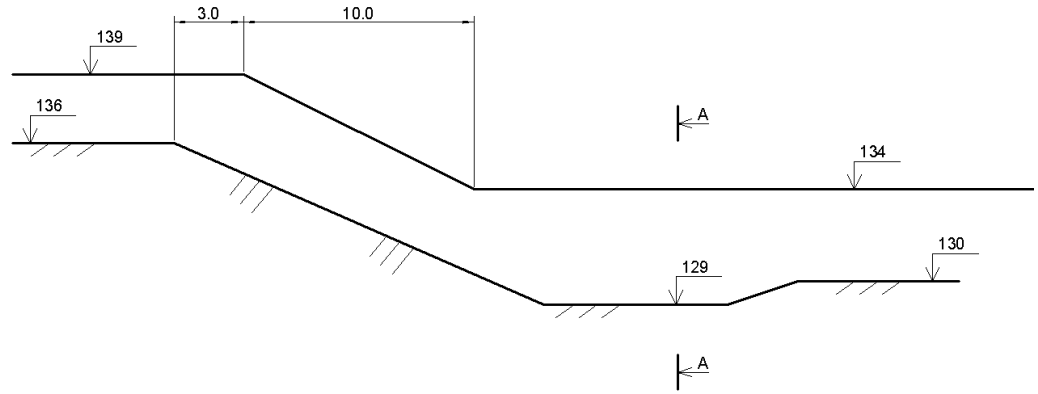
22-variant



23-variant

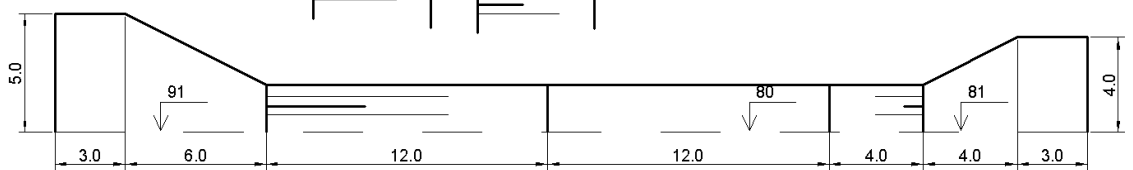
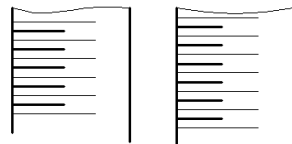
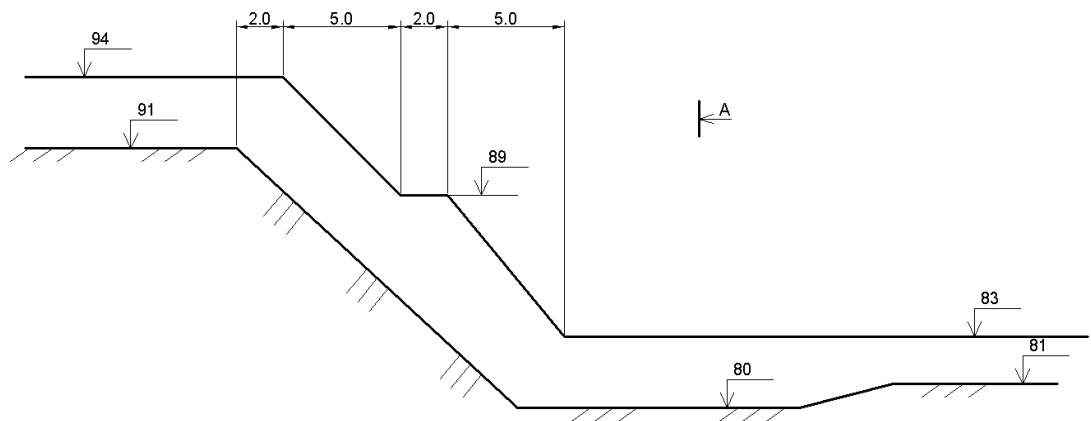


24-variant



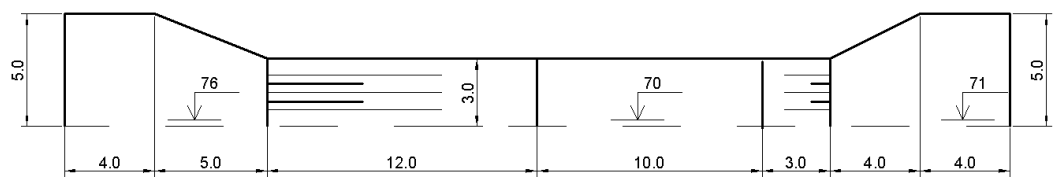
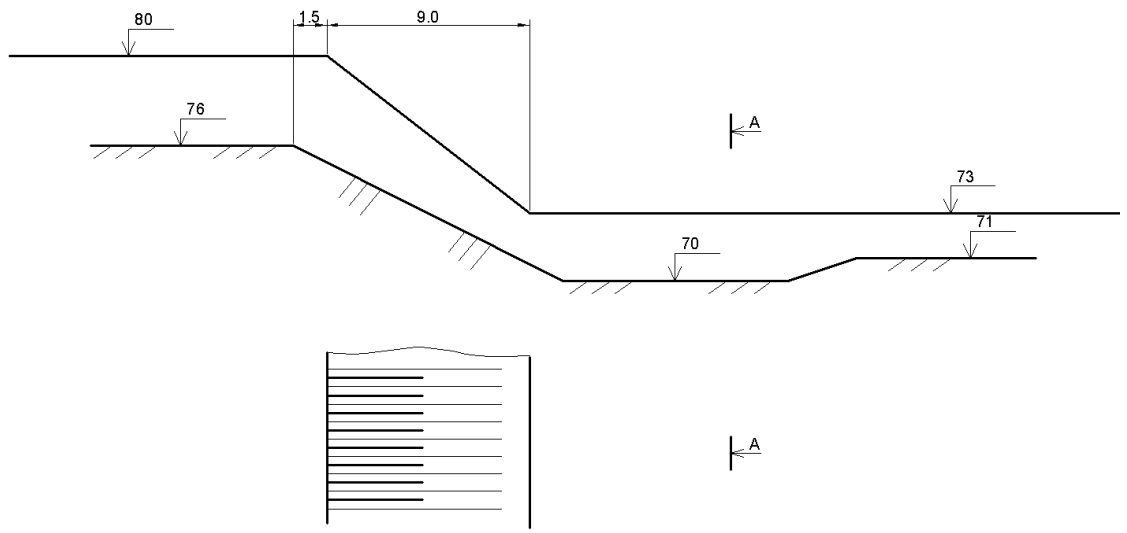
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25-variant



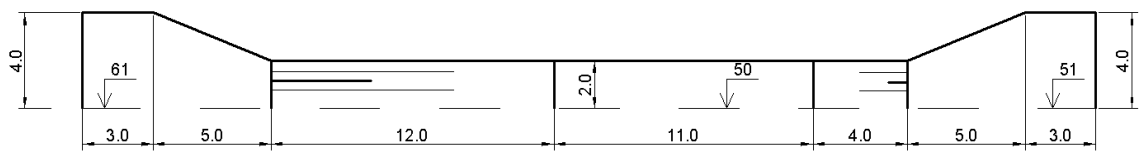
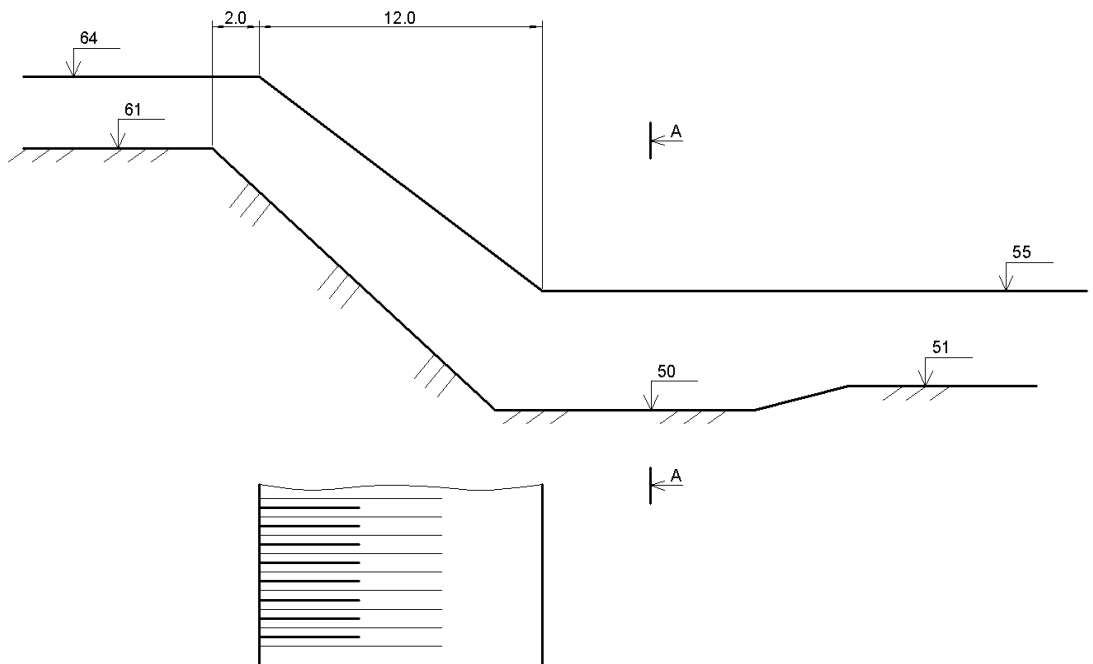
M 1:200

26-variant



M 1:200

27-variant



M 1:200

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1. Соловьев С. А. и др. „Задачник по черчению и перспективе“ Москва „Высшая школа“ 1988
2. Urishev A. E. va b. „Muhandislik grafikasi“ fanidan topshiriqlar to‘plami (2-qism)

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