

OLIV TA'LIM, FAN VA INNOVATSIYALAR VAZIRLIGI
NAMANGAN MUHANDISLIK-QURILISH INSTITUTI

MEXANIKA KAFEDRASI

CHIZMA GEOMETRIYA VA MUHANDISLIK
GRAFIKASI FANIDAN

QURILISH TA'LIM YO'NALISHLARINING

39-40-41-Qurmux-24, 8-MKQ-24, 10-G va GM-24

GURUH TALABALARI UCHUN
1-SEMESTRGA MO'LJALLANGAN

AMALIY ISH
TOPSHIRIQLAR TO'PLAMI

Namangan-2024

“TASDIQLAYMAN”

_____ fakulteti dekani

“ ____ ” _____ 2024 y.

Namangan muhandislik-qurilish instituti _____ kafedrası

№ ____ sonli yig'ilishida muhokama qilingan.

_____ kafedrası mudiri

“ ____ ” _____ 2024 y.

Kafedra ekspertlari: Xamrakulov A.K.

Mahkamov G.U.

Tursunov Sh.SH.

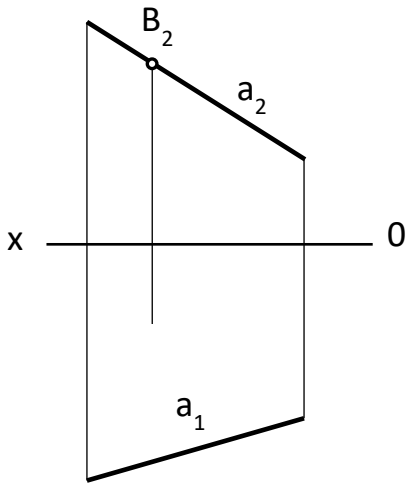
Fan o'qituvchilari: Xamrakulov A.K

Savollar.

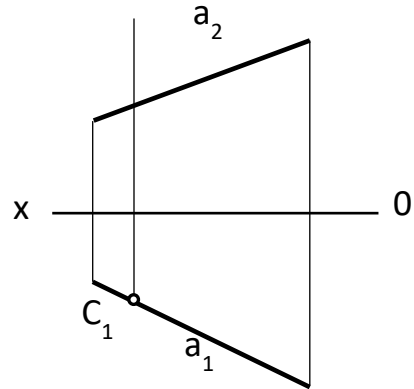
1- amaliy ish uchun savollar

A (60, -60, 30) va B(-20,30, 60) nuqtalarning epyrini quring

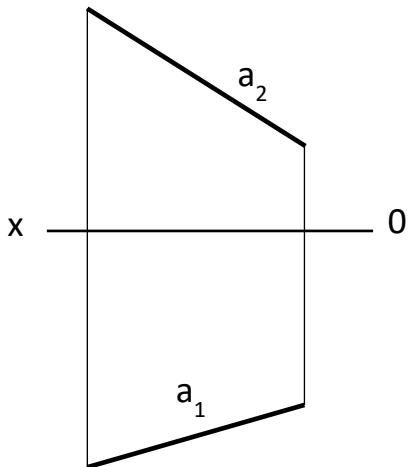
A (-60, 50, -30) va B(30,-80, -60) nuqtalarning epyrini quring



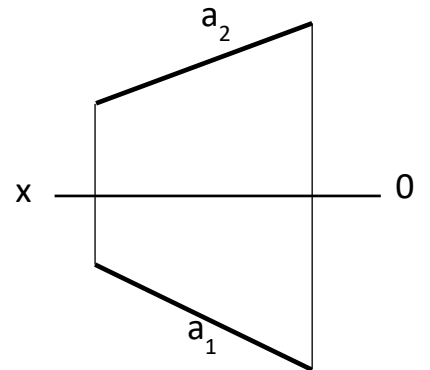
1-masala. B nuqta a to'g'ri chiziqqa tegishli. B nuqtani yetishmayotgan B_1 gorizantal proeksiyasini toping



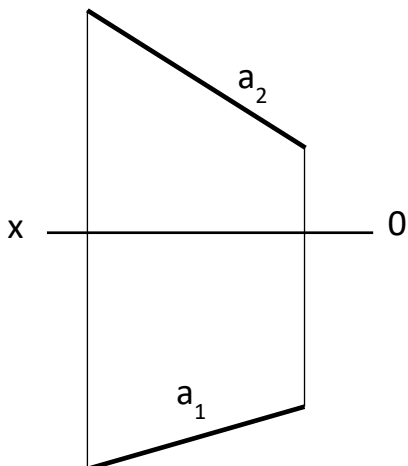
2-masala. C nuqta a to'g'ri chiziqqa tegishli. C nuqtani yetishmayotgan C_2 frontal proeksiyasini toping



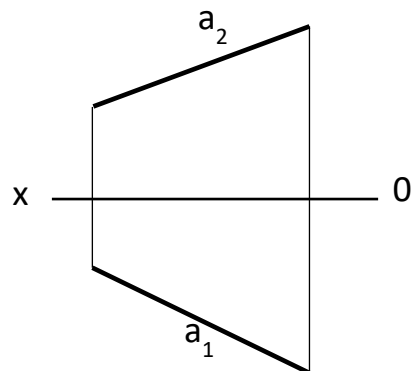
3-masala. a to'g'ri chiziqni teng 5 bo'lakka bo'ling



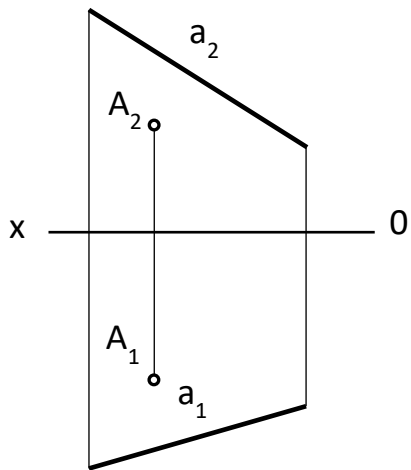
4-masala. a to'g'ri chiziqni teng 3 bo'lakka bo'ling



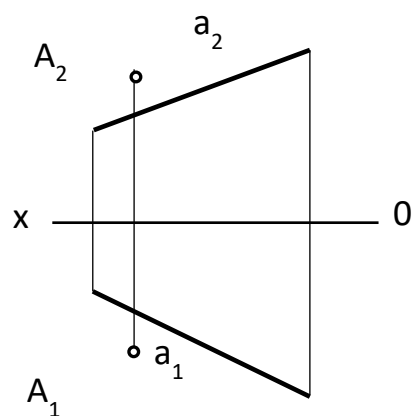
5-masala. a to'g'ri chiziqni 2/5 nisbatda bo'ling va o'sha nuqtani K harfi bilan belgilang



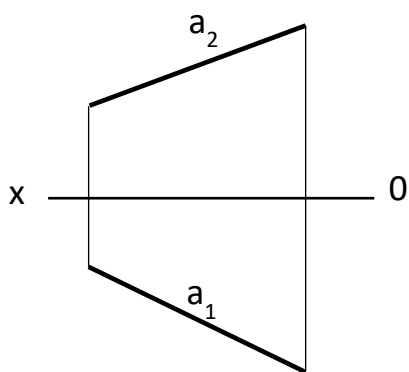
6-masala. a to'g'ri chiziqni teng 1/3 nisbatda bo'ling o'sha nuqtani M harfi bilan belgilang



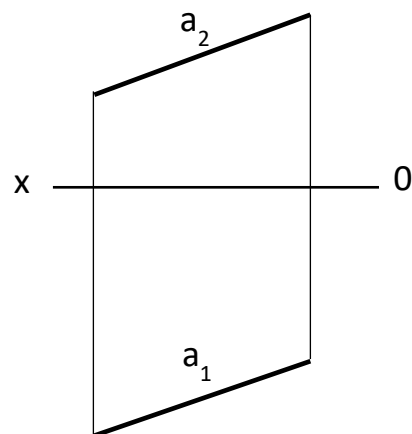
7-masala. a to'g'ri chiziqqa A nuqtadan parallel b to'g'ri chiziq o'tkazing va kesishgan nuqtasini aniqlang



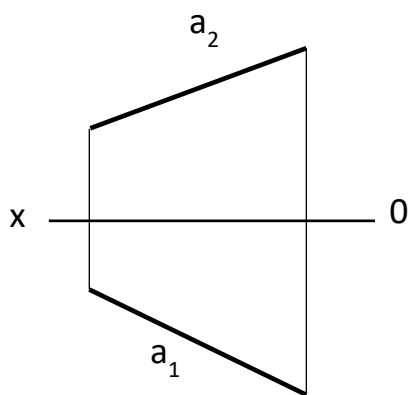
8-masala. a to'g'ri chiziqqa A nuqtadan parallel b to'g'ri chiziq o'tkazing va kesishgan nuqtasini aniqlang



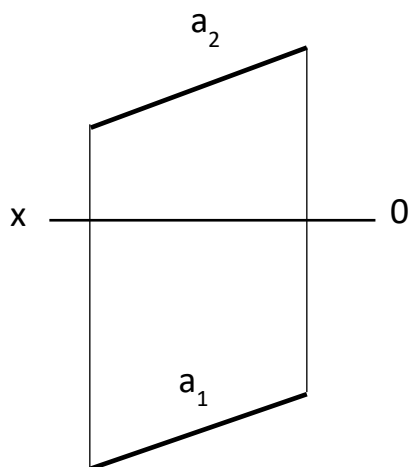
9-masala. a to'g'ri chiziqning haqiqiy kattaligini toping



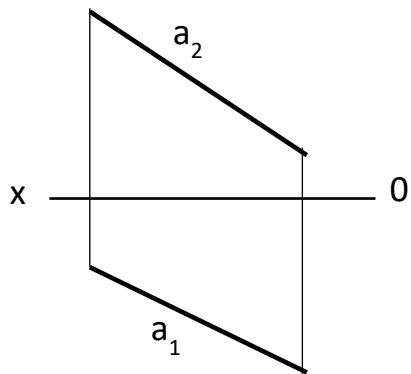
10-masala. a to'g'ri chiziqning haqiqiy kattaligini toping



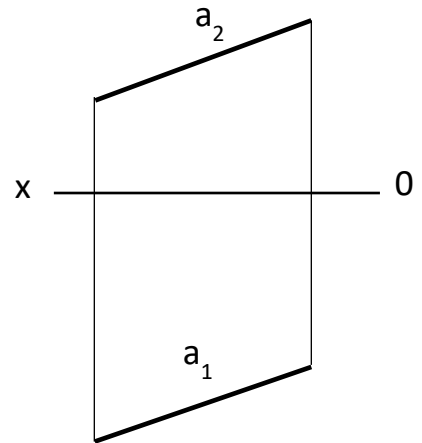
11-masala. a to'g'ri chiziqning haqiqiy kattaligini aylantirish usulida toping



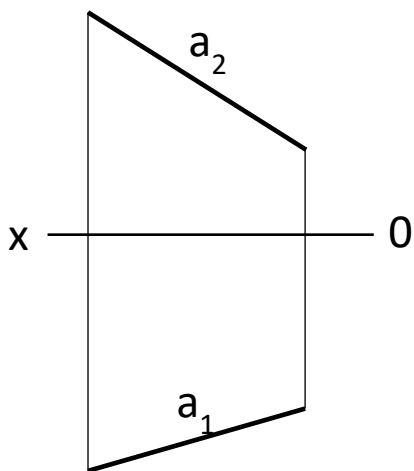
12-masala. a to'g'ri chiziqning haqiqiy kattaligini proeksiyalari tekisligini almashtirish



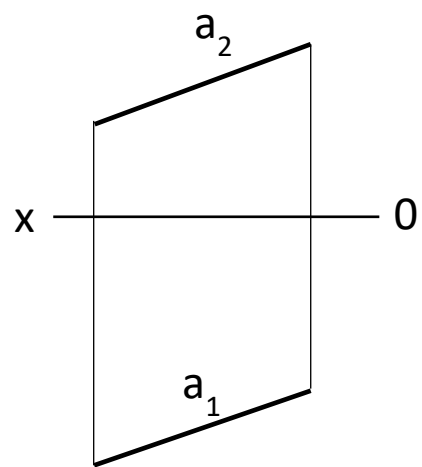
13-masala. a to'g'ri chiziqning haqiqiy kattaligini toping



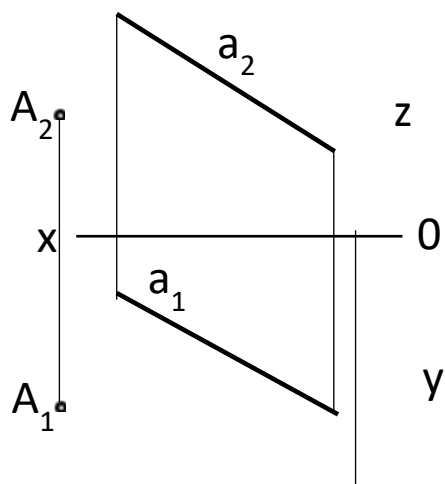
14-masala. a to'g'ri chiziqning haqiqiy kattaligini toping



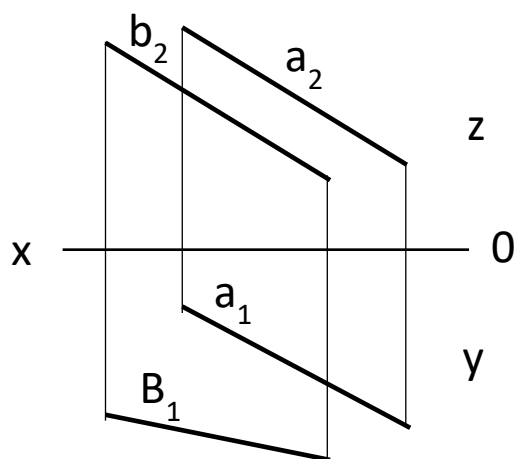
15-masala. Gorizontal H proeksiya tekislikka parallel va 20 mm masofada b to'g'ri chiziq o'tkazing va a to'g'ri chiziq bilan kesishgan nuqtasini aniqlang



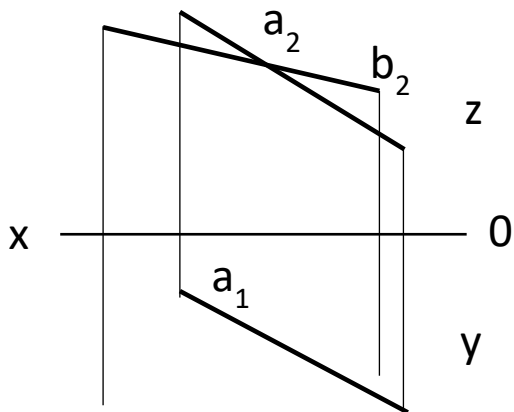
16-masala. Frontal V proeksiya tekislikka parallel va 20 mm masofada b to'g'ri chiziq o'tkazing va a to'g'ri chiziq bilan kesishgan nuqtasini aniqlang



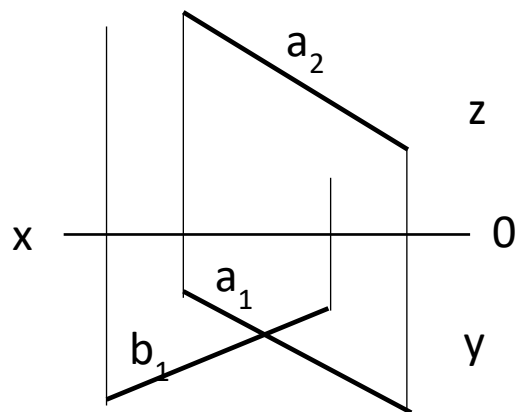
17-masala. A nuqtadan shunday to'g'ri chiziq o'tkazinki, o'tkazilgan to'g'ri chiziq a to'g'ri chiziq va z o'qini kesib o'tsin.



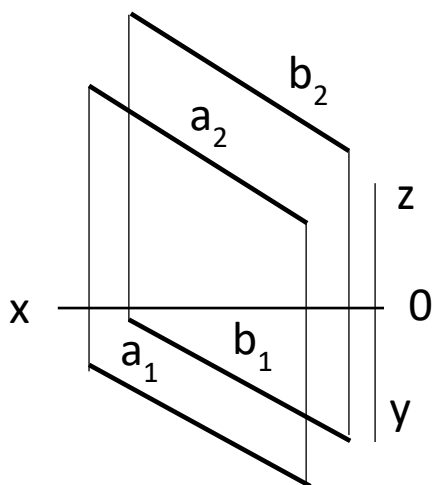
18-masala. Shunday to'g'ri chiziq o'tkazinki, o'tkazilgan to'g'ri chiziq a va b to'g'ri chiziq larni kesib o'tsin



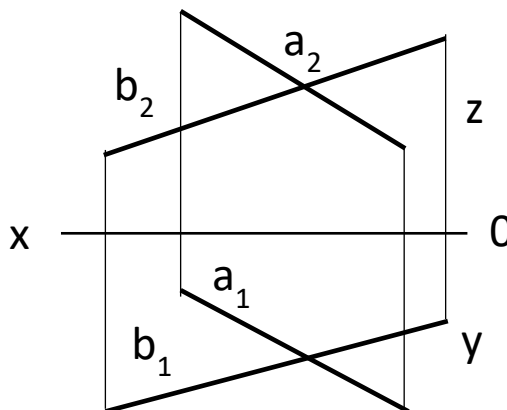
19-masala. a va b to'g'ri chiziq o'zaro kesishgan. b to'g'ri chizining yetishmayotgan gorizontaal proeksiyasini



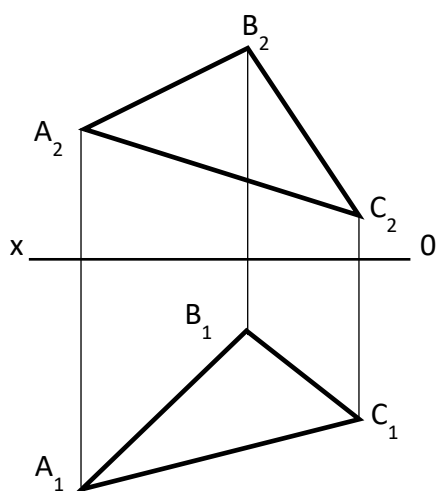
20-masala. a va b to'g'ri chiziq o'zaro kesishgan. b to'g'ri chizining yetishmayotgan frontal proeksiyasini



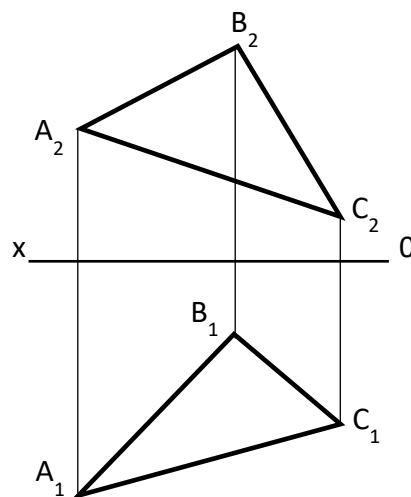
21-masala. Shunday to'g'ri chiziq o'tkazinki, o'tkazilgan to'g'ri chiziq a va b to'g'ri chiziqlarni kesib o'tsin.



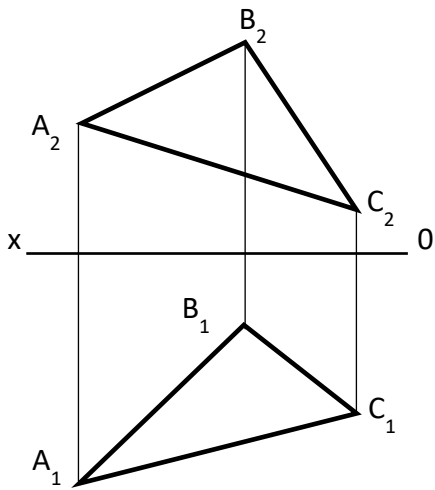
22-masala. Shunday to'g'ri chiziq o'tkazinki, o'tkazilgan to'g'ri chiziq a va b to'g'ri chiziqlarni kesib o'tsin



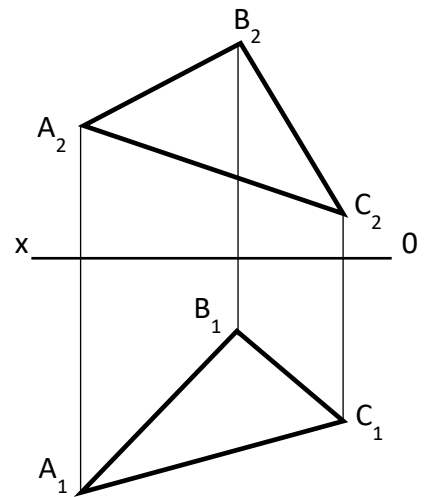
23-masala. ABC tekislikka gorizontaal



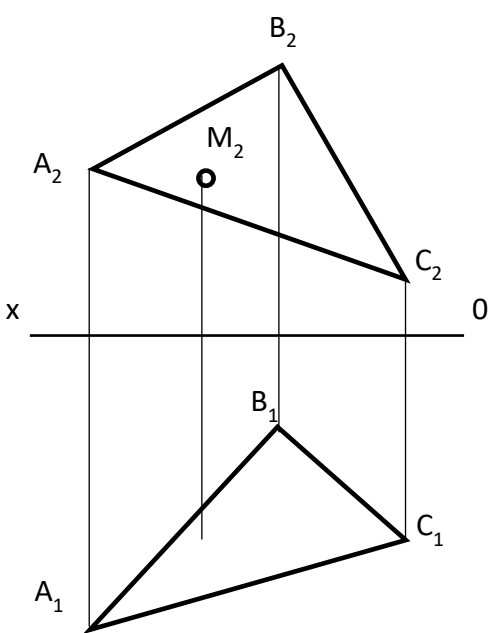
24-masala. ABC tekislikka frontal



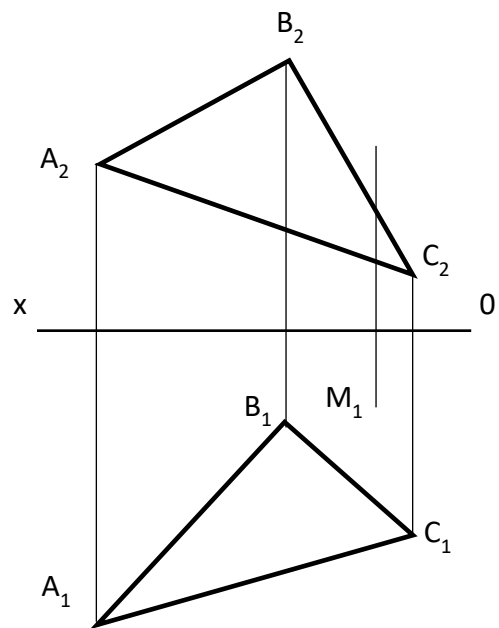
25-masala. ABC tekislikka gorizontal



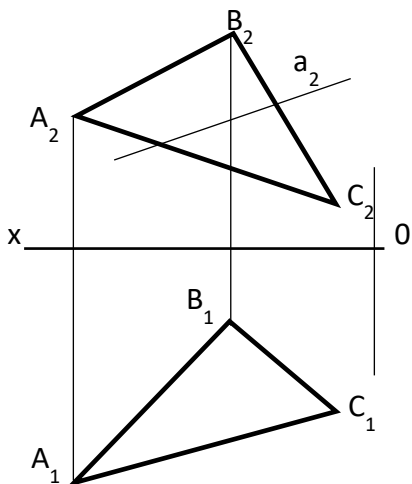
26-masala. ABC tekislikka frontal



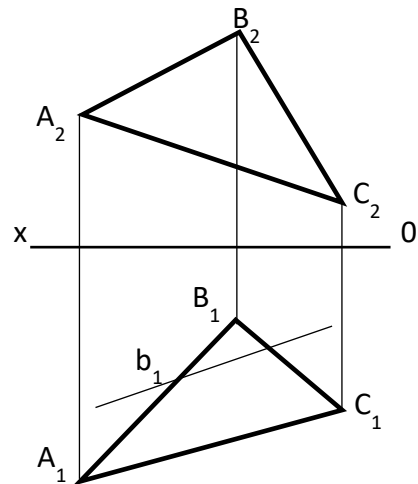
27-masala. M nuqta ABC tekislikka tegishli. M nuqtani gorizontal proektsiyasini quring



28-masala. M nuqta ABC tekislikka tegishli. M nuqtani frontal proektsiyasini quring

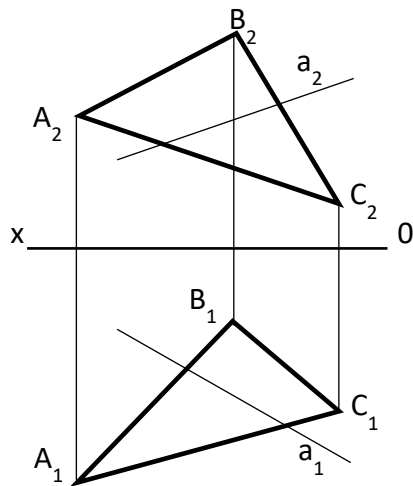


29-masala. a to'g'ri chiziq ABC tekislikka tegishli. a to'g'ri chiziqning

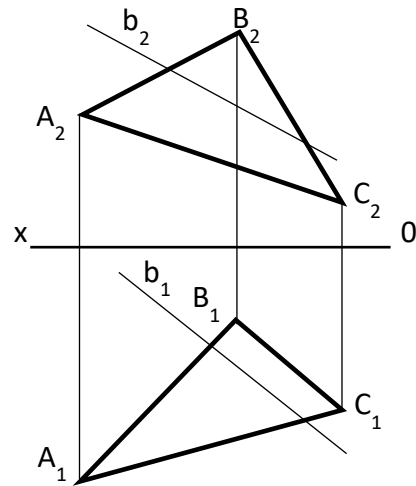


30-masala. b to'g'ri chiziq ABC tekislikka tegishli. a to'g'ri chiziqning frontal proektsiyasini aniqlang

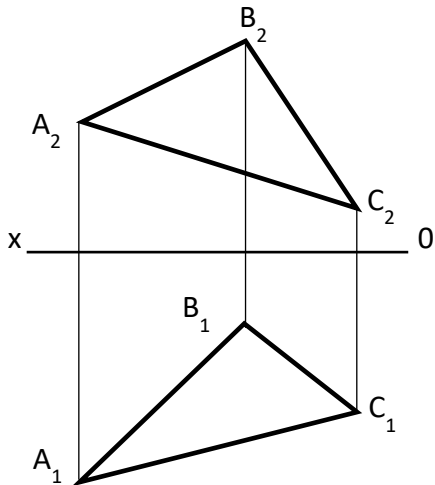
2-amaliy ish uchun topshiriqlar



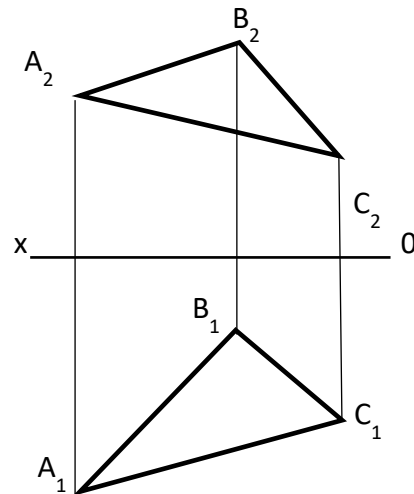
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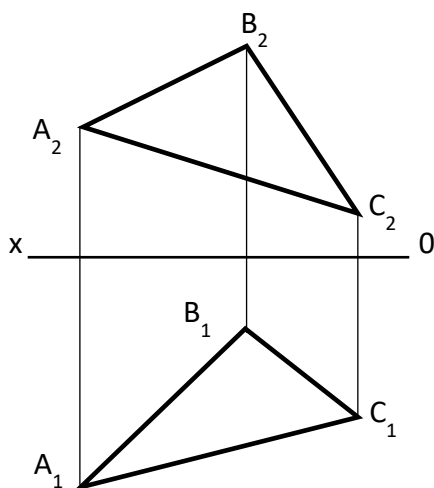
2-masala. a to'g'ri chiziq va ABC tekislikni kesishish nuqtasini toping



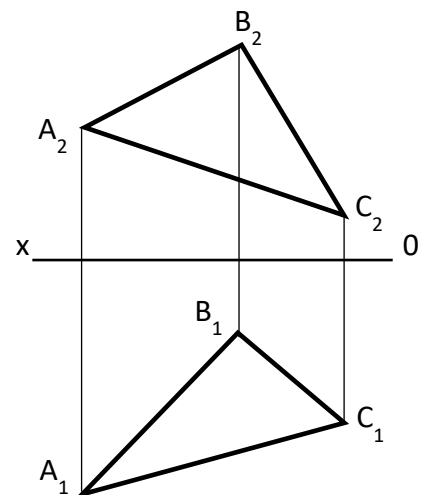
3-masala. ABC tekislikka ixtiyoriy masofada parallel α tekislik quring



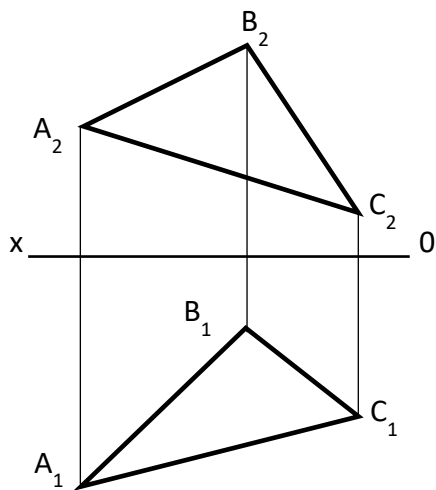
4-masala. ABC tekislikka ixtiyoriy masofada parallel β tekislik quring



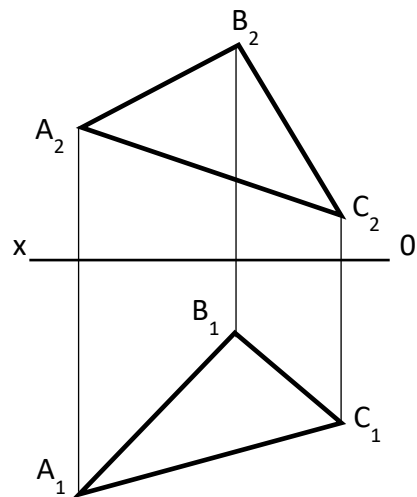
5-masala. ABC tekislikka ixtiyoriy masofada parallel c to'g'ri chiziq tushuring.



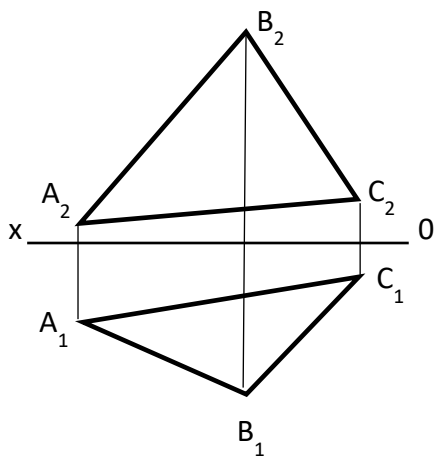
6-masala. ABC tekislikning AB tomoniga ixtiyoriy masofada parallel b to'g'ri chiziq tushuring



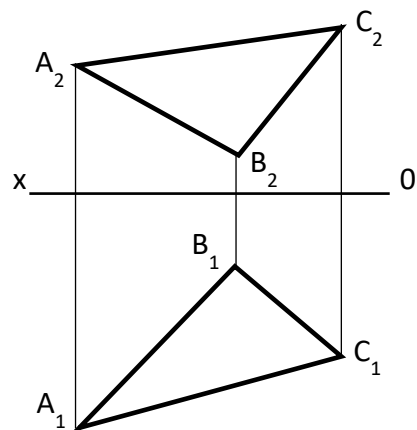
7-masala. ABC tekislikning AC tomoniga ixtiyoriy masofada parallel c to'g'ri chiziq



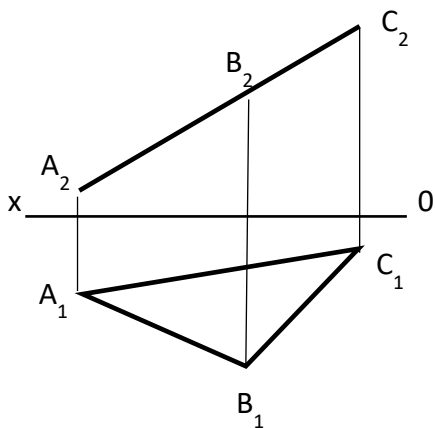
8-masala. ABC tekislikning BC tomoniga ixtiyoriy masofada parallel b to'g'ri chiziq tushuring



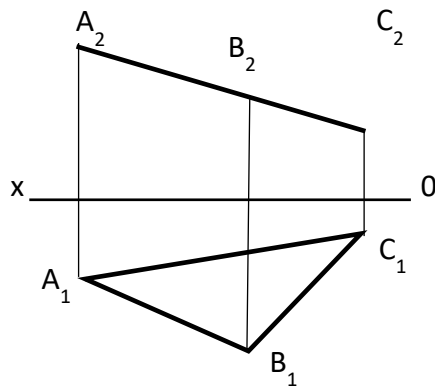
9-masala. ABC tekislikka ixtiyoriy nuqtadan perpendikulyar tushuring.



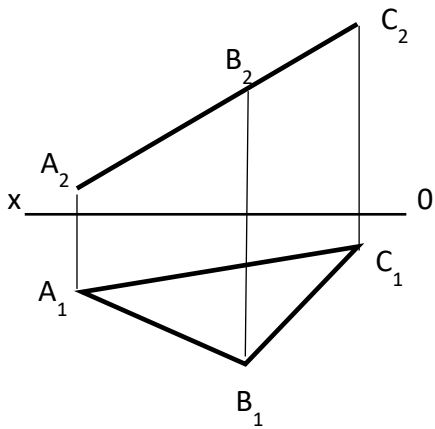
10-masala. ABC tekislikka A nuqtadan perpendikulyar tushuring.



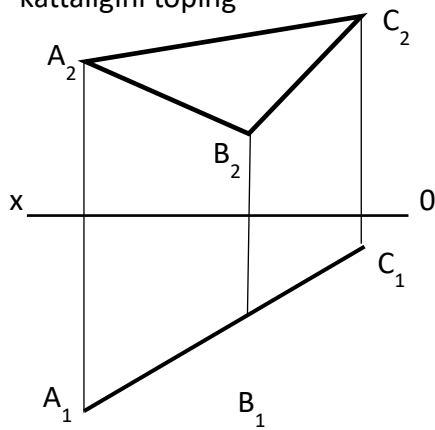
11-masala. ABC tekislikni aylantirish usulida haqiqiy kattaligini toping



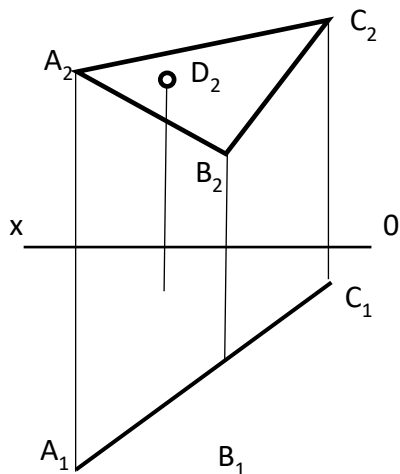
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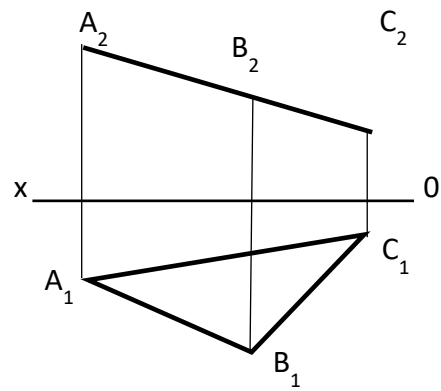
13-**masala.** ABC tekislikni proektsiyalar tekisligini almashtirish usulida haqiqiy kattaligini toping



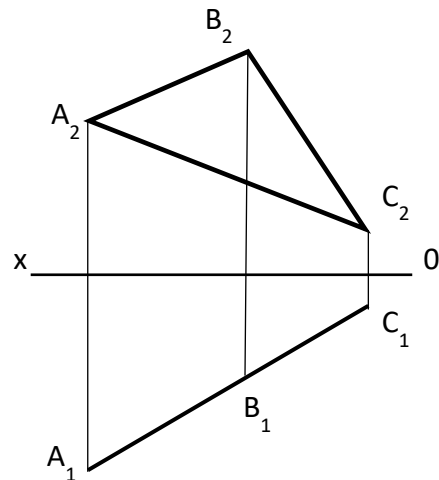
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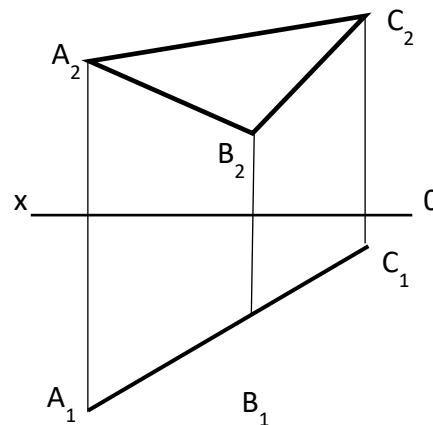
17-**masala.** D nuqta ABC tekislikka tegishli. D nuqtani yetishmayotgan proektsiyasini toping.



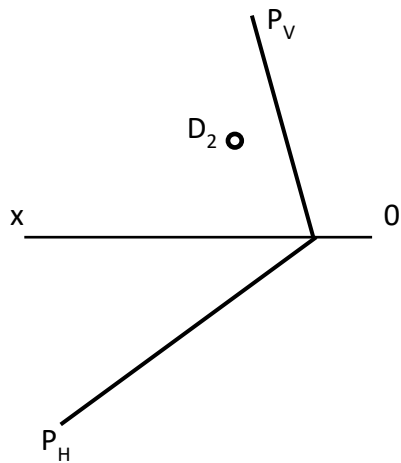
14-**masala.** ABC tekislikni aylantirish usulida haqiqiy kattaligini toping



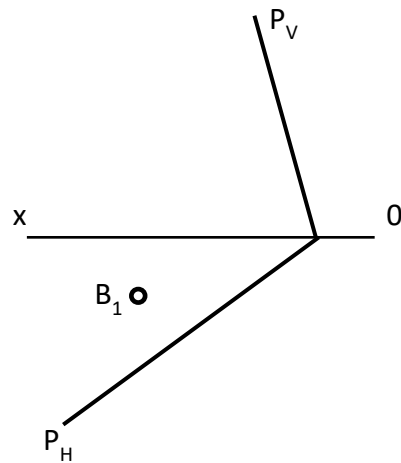
16-**masala.** ABC tekislikni proektsiyalar tekisligini almashtirish usulida haqiqiy kattaligini toping



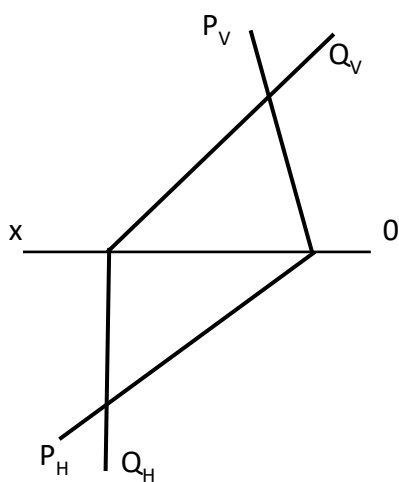
18-**masala.** ABC tekislikni tekis parallel harakatlantirish usulida haqiqiy kattaligini toping



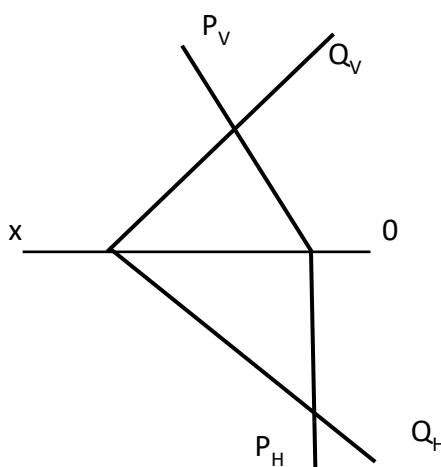
19-**masala.** D nuqta ABC tekislikka tegishli. D nuqtani yetishmayotgan proeksiyasini toping.



20-**masala.** B nuqta ABC tekislikka tegishli. B nuqtani yetishmayotgan proeksiyasini toping.

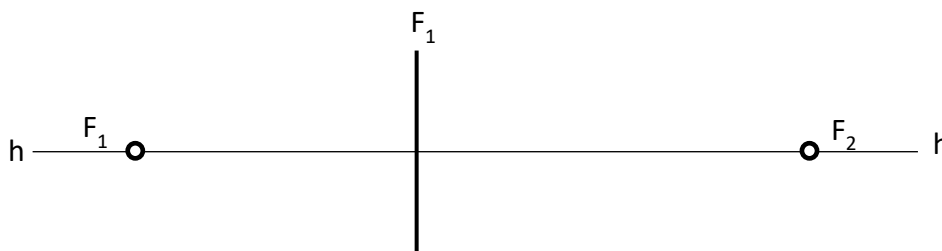


21-**masala.** P($P_H P_V$) va Q($Q_H Q_V$) tekisliklarini kesisish chizig'ni aniqlang



22-**masala.** P($P_H P_V$) va Q($Q_H Q_V$) tekisliklarini kesisish chizig'ni aniqlang

Perspektiva



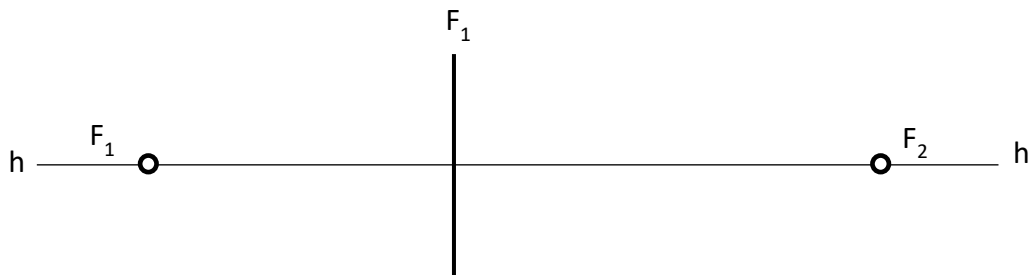
23-**masala.** Kubning kartina tekisligiga tegib turgan qirradi haqiqiy kattalikda ufq chizigining h-h balandligii va parallel to'g'ri chiziqlarning uchrashuv F_1 va F_2 nuqtalari berilgan. Kubning perspektivasini bajaring



24-**masala.** Kubning kartina tekisligiga tegib turgan qirrasining o'chami, ufq chizigining h-h balandligii va parallel to'g'ri chiziqlarning uchrashuv F_1 va F_2 nuqtalari berilgan. Kubning perspektivasini bajaring

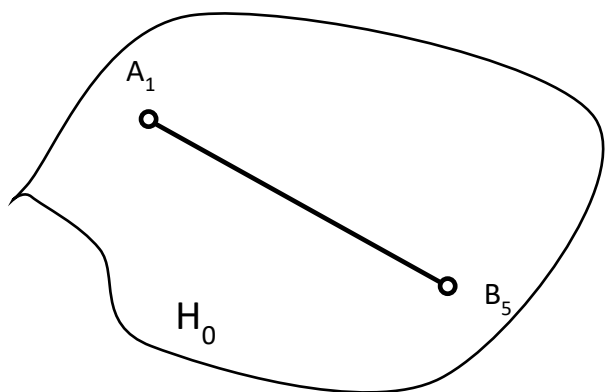


25-**masala.** Kubning kartina tekisligiga tegib turgan qirrasining o'chami, ufq chizigining h-h balandligii va parallel to'g'ri chiziqlarning uchrashuv F_1 va F_2 nuqtalari berilgan. Kubning perspektivasini bajaring

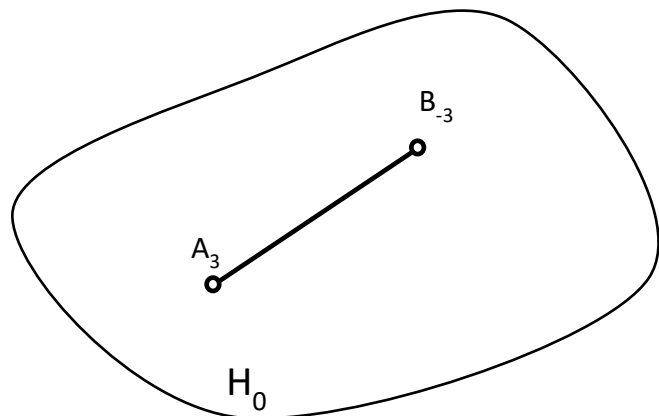


26-**masala.** Kubning kartina tekisligiga tegib turgan qirrasini haqiqiy kattalikda ufq chizigining h-h balandligii va parallel to'g'ri chiziqlarning uchrashuv F_1 va F_2 nuqtalari berilgan. Kubning perspektivasini bajaring

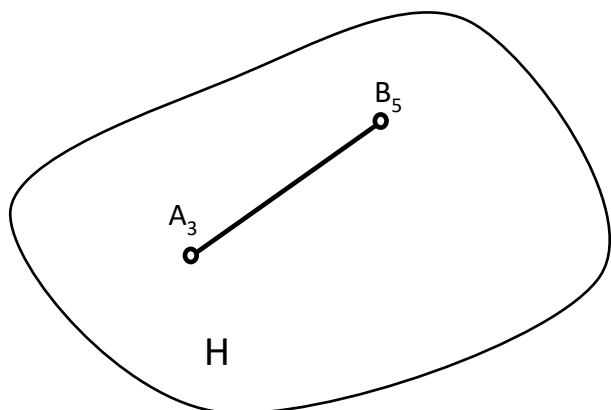
Son belgili proeksiya



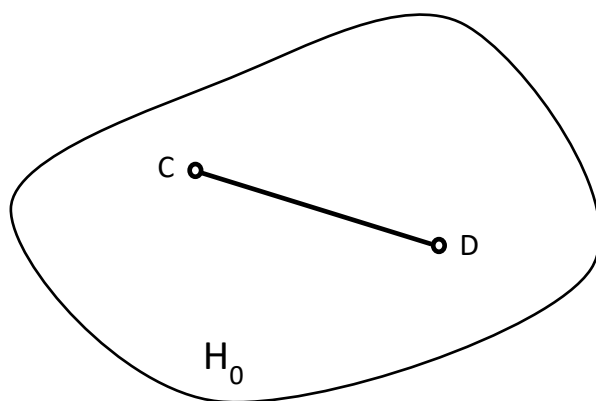
27-masala. AB kesmani haqiqiy kattaligini aniqlang



28-masala. AB kesmani haqiqiy kattaligini aniqlang

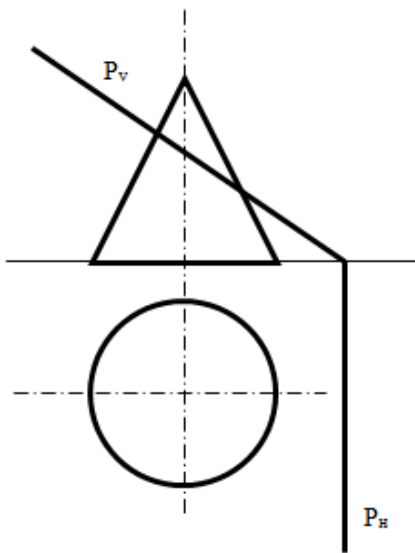


29-masala. A_3B_5 to'g'ri chiziqqa parallel bo'lgan CD to'g'ri chiziq chizing

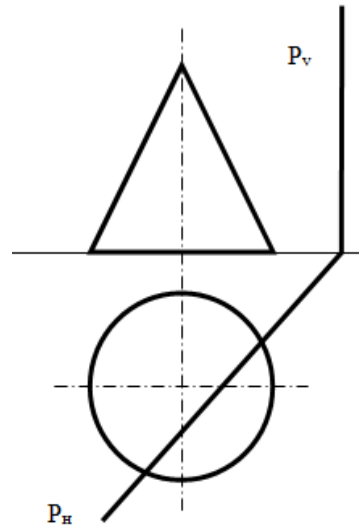


30-masala. H_0 tekislikka 5 m balandlikda parallel bo'lgan CD to'g'ri chiziq chizing

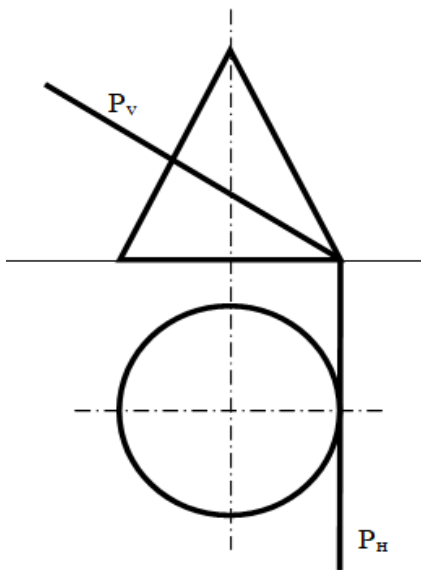
3-amaliy ish uchun topshiriqlar



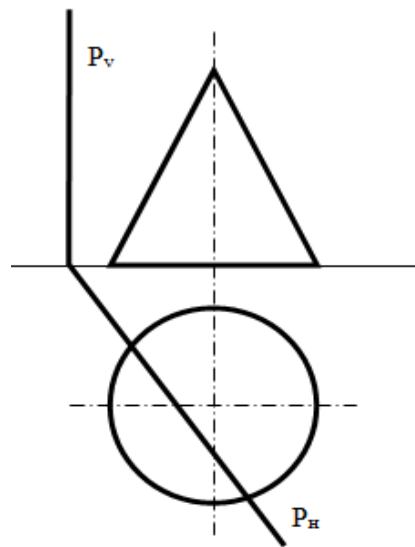
1-masala. Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



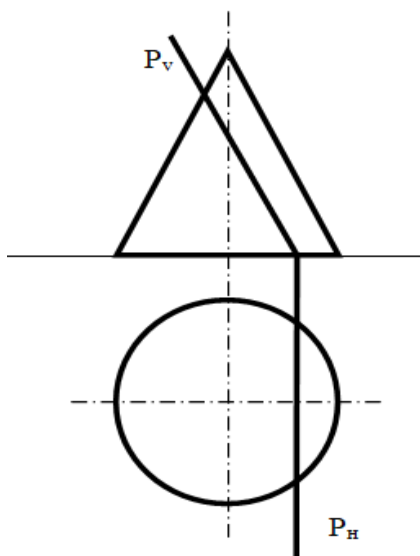
2-masala. Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



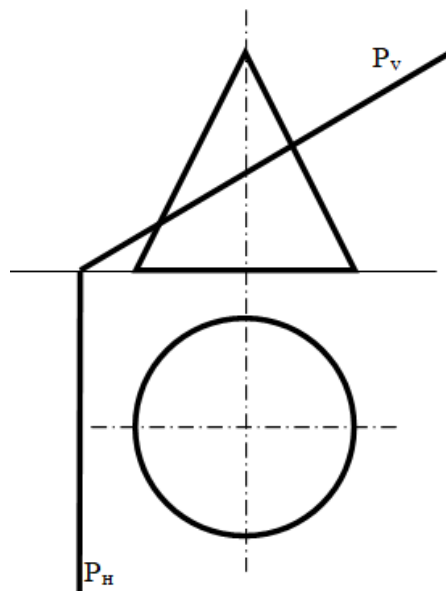
3-masala. Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



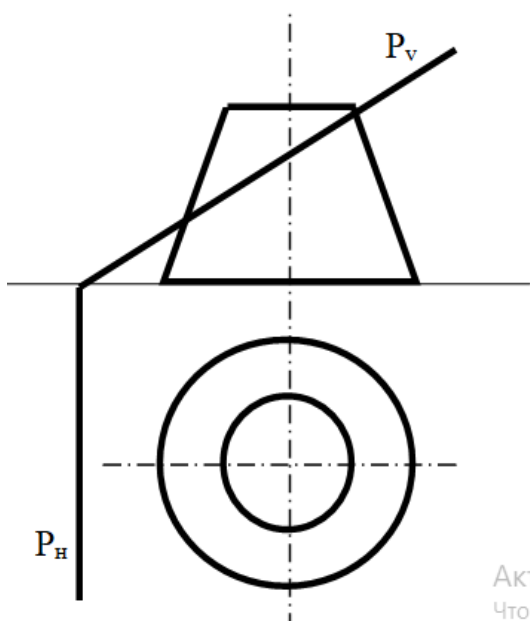
4-masala. Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



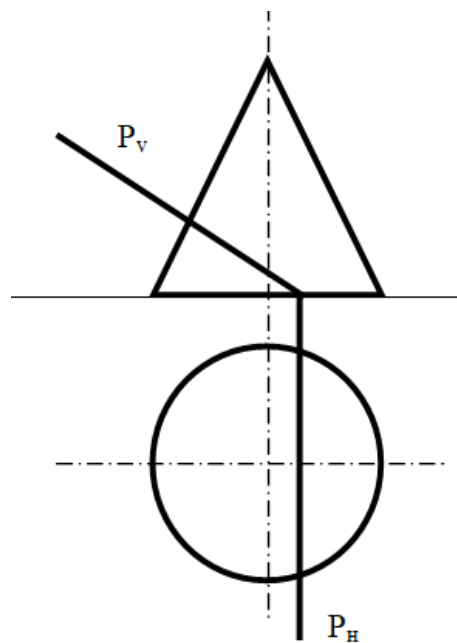
5-masala. Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



6-masala. Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang

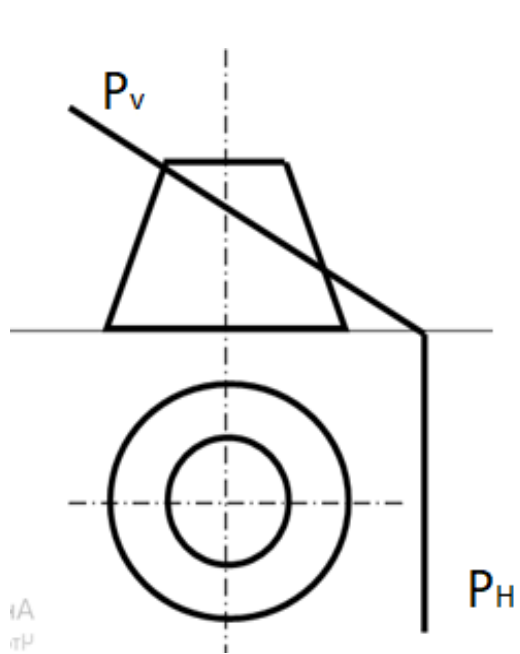


7-masala. Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang

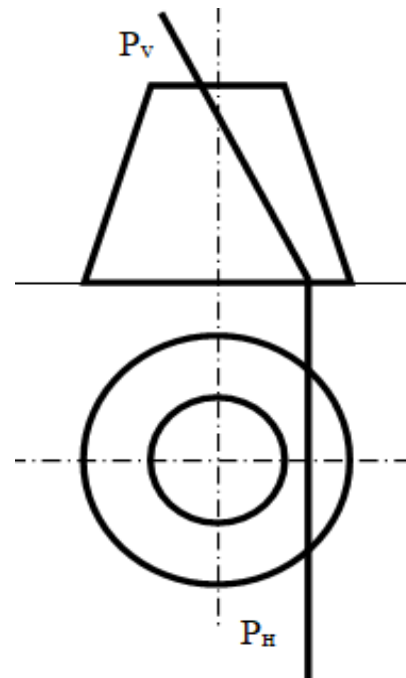


8-masala. Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang

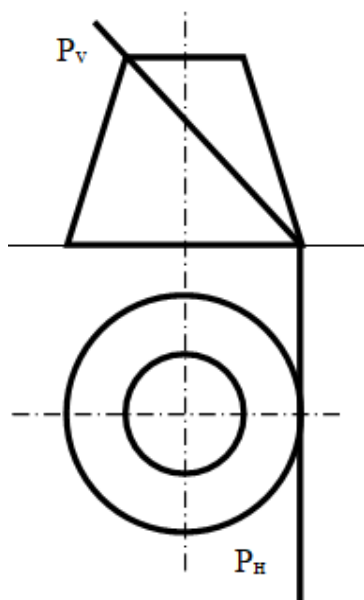
АКТИ
Чтобы



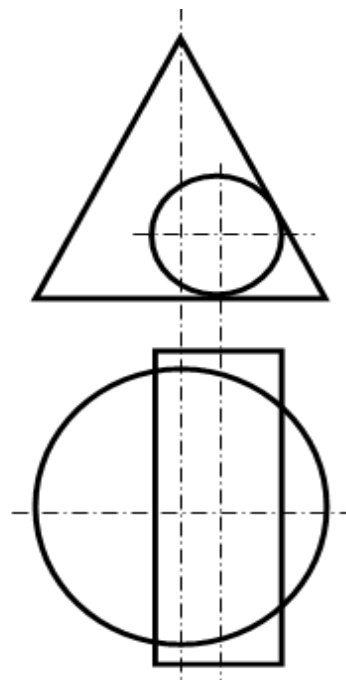
9-**masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



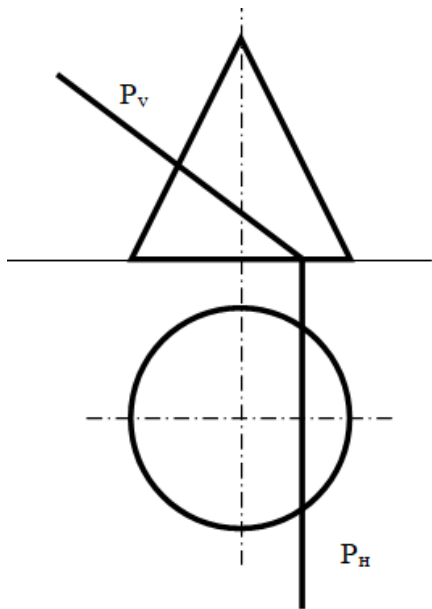
10-**masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



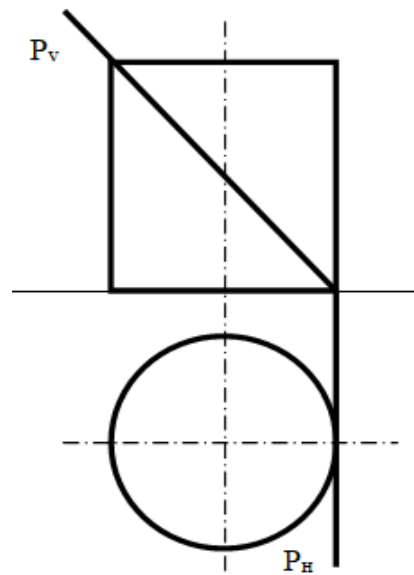
11-**masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



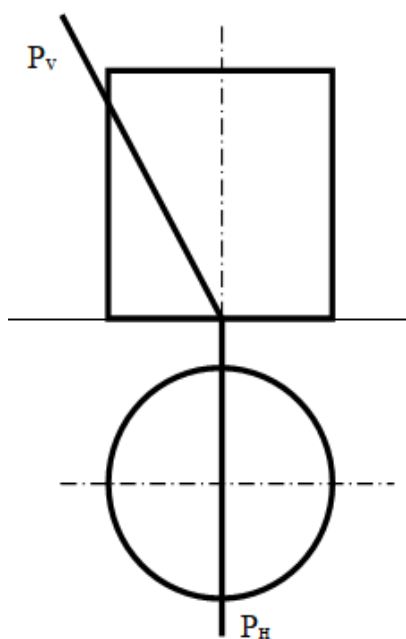
12-**masala.** Konus bilan silindrni o'zaro kesishish chizig'ini quring



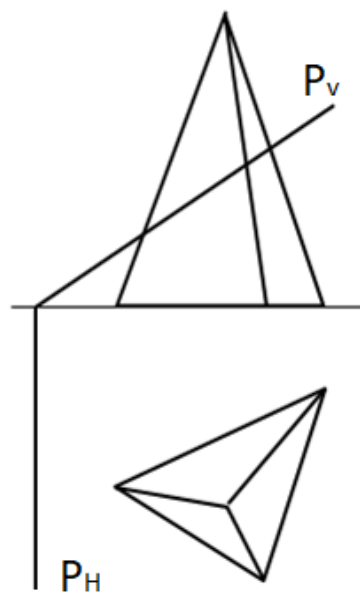
13-**masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



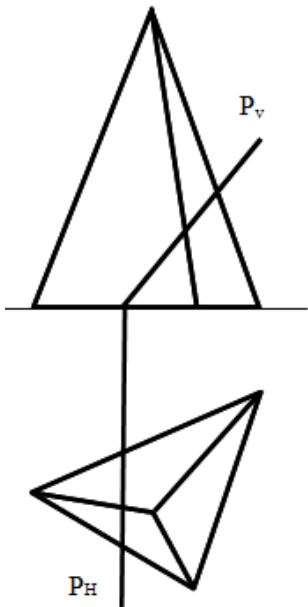
14-**masala.** Silindrni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



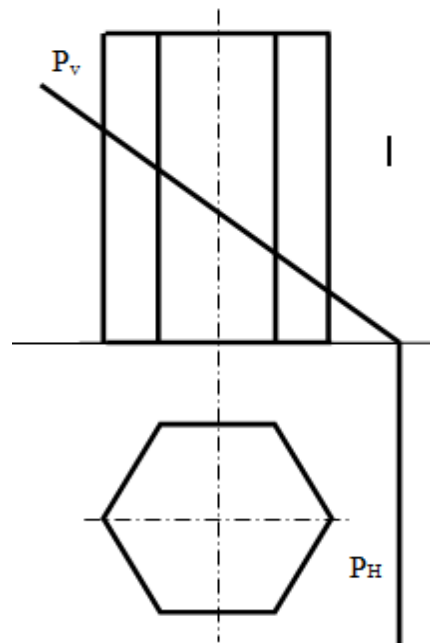
15-**masala.** Silindrni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



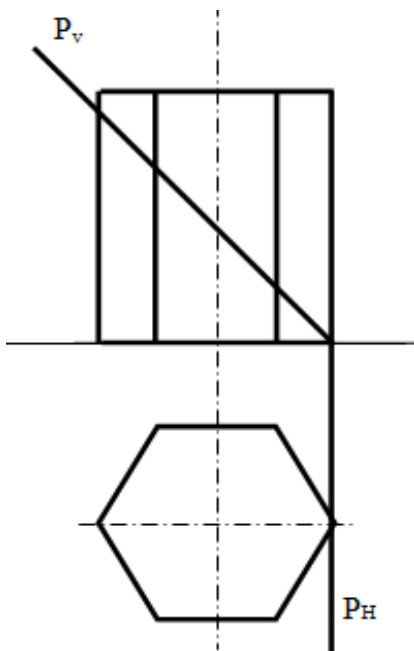
16-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



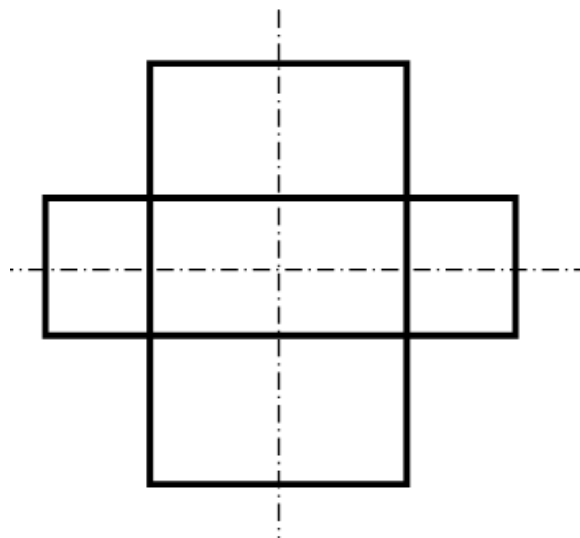
17-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



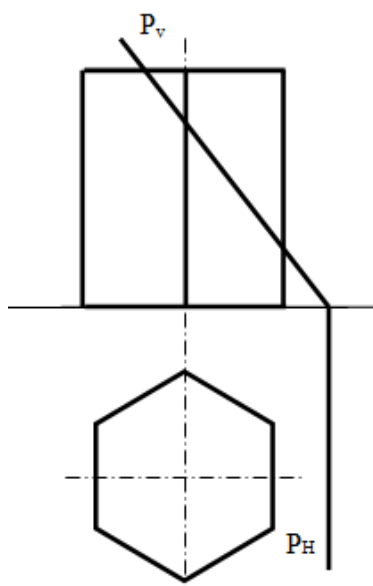
18-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



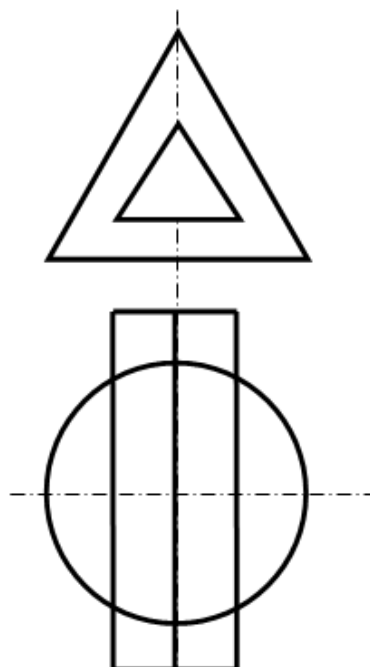
19-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



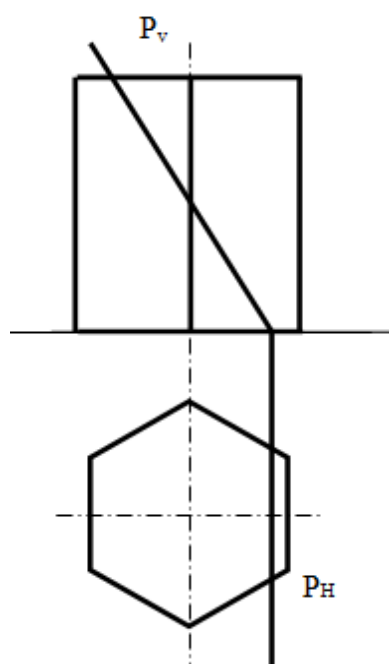
20-**masala.** Ikki silindrning o'zaro kesishish chizig'ini quring



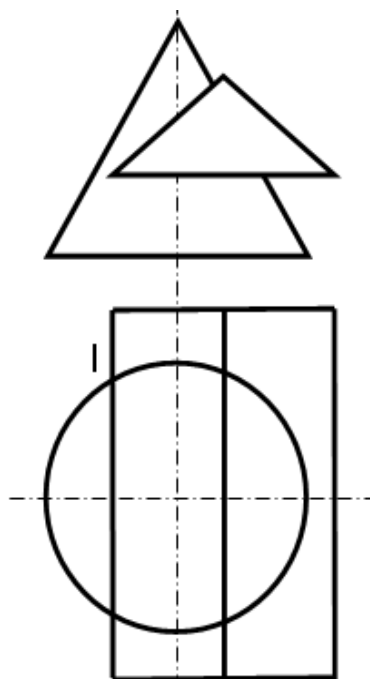
21-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



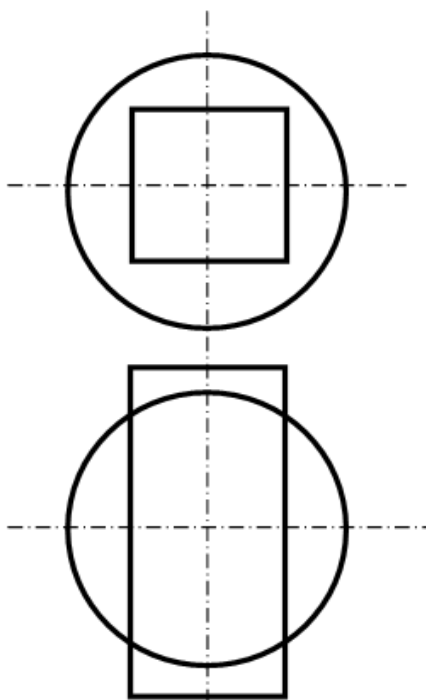
22-**masala.** Konus bilan prizmani o'zaro kesishish chizig'ini quring



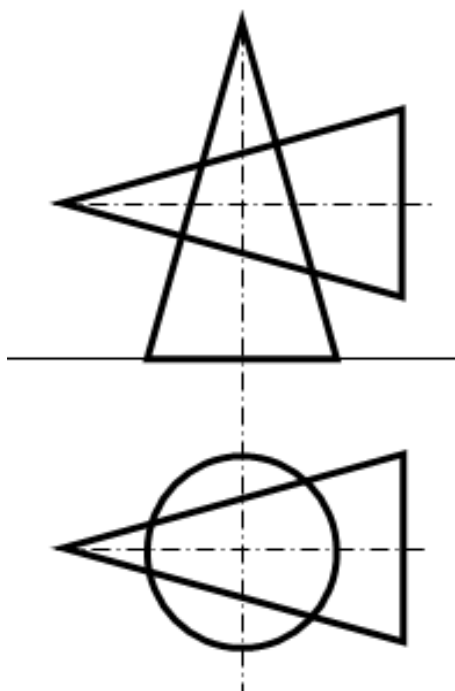
23-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



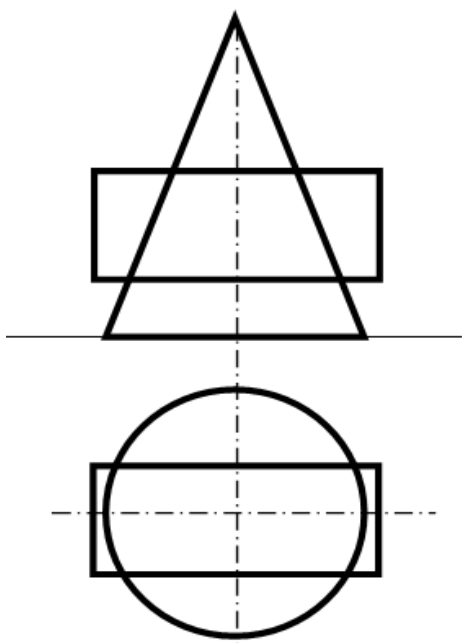
24-**masala.** Konus bilan prizmani o'zaro kesishish chizig'ini quring



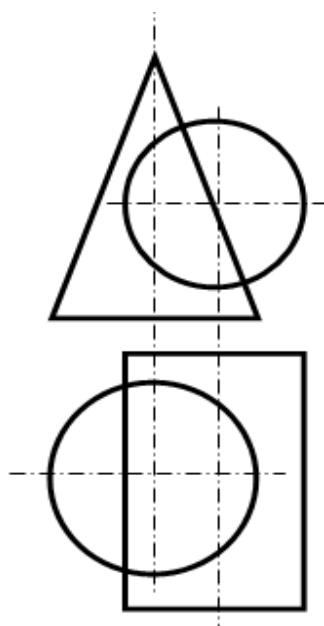
25-**masala.** Shar bilan prizmani o'zaro kesishish chizig'ini quring



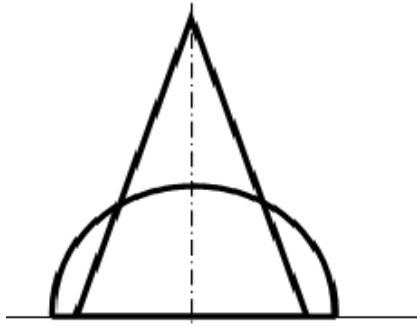
26-**masala.** Konus bilan konusni o'zaro kesishish chizig'ini quring



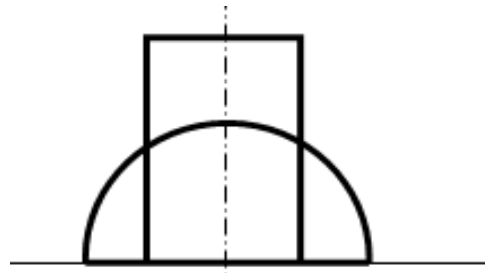
27-**masala.** Konus bilan silindrni o'zaro kesishish chizig'ini quring



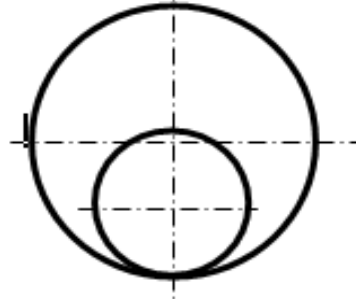
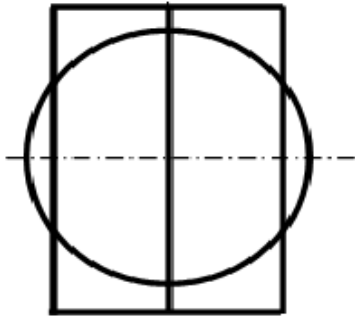
28-**masala.** Konus bilan silindrni o'zaro kesishish chizig'ini quring



29-**masala.** Yarim shar bilan prizmani o'zaro kesishish chizig'ini quring



30-**masala.** Yarim shar bilan silindrni o'zaro kesishish chizig'ini quring



VII. BAHOLASH MEZONI

1 savol:

		ball
1	Berilgan topshiriqni to'g'ri ko'chirganligi	0-3
2	Topshiriqni to'g'ri bajarganligi	6
3	Topshiriqni qog'ozga to'g'ri joylaganligi	2
4	Chiziq turlarini to'g'ri qo'llaganligi	4
	jami	15

2 savol:

		ball
1	Berilgan topshiriqni to'g'ri ko'chirganligi	3
2	Topshiriqni to'g'ri bajarganligi	6
3	Topshiriqni qog'ozga to'g'ri joylaganligi	2
4	CHiziq turlarini to'g'ri qo'llaganligi	4
	jami	15

3 savol:

		ball
1	Berilgan topshiriqni to'g'ri ko'chirganligi	0-3
2	Topshiriqni to'g'ri bajarganligi	6
3	Topshiriqni qog'ozga to'g'ri joylaganligi	2
4	Proektsiyalarni o'zaro proektsion bog'lanishlari	5
5	CHiziq turlarini to'g'ri qo'llaganligi	4
	jami	20

III. TAVSIYA ETILGAN ADABIYOTLAR

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2. J.Yodgorov. Chizma geometriya (darslik).T.Turon-Iqbol, 2007 y.
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4. Xamrakulov A.K. Chizma geometriya. O'quv qo'llanma. – Toshkent, “Lesson press”, 2022,148 bet