

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

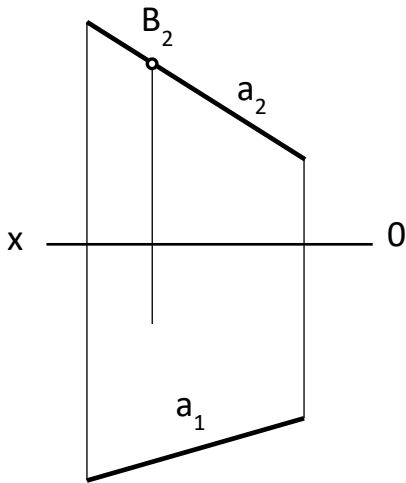
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Savollar.

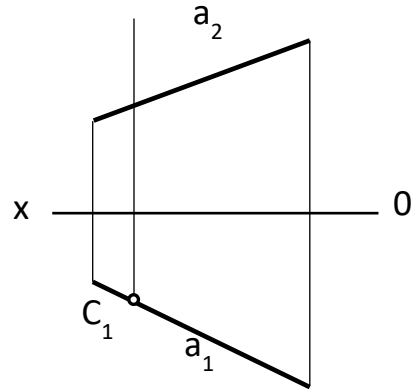
1- amaliy ish uchun savollar

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

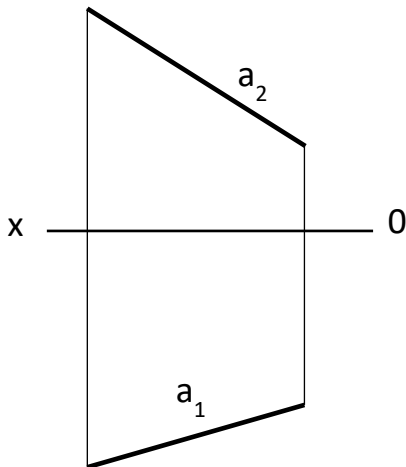
A (-60, 50, -30) va B(30,-80, -60) nuqtalarning epyrini quring



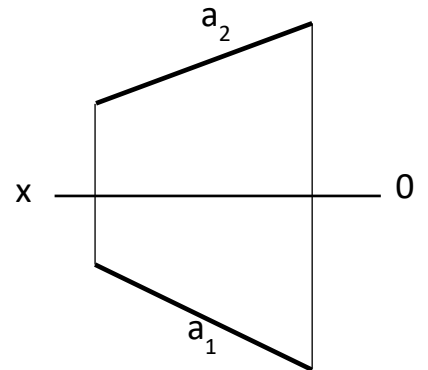
**1-masala.** B nuqta a to'g'ri chiziqqa tegishli. B nuqtani yetishmayotgan  $B_1$  gorizontal proeksiyasini toping



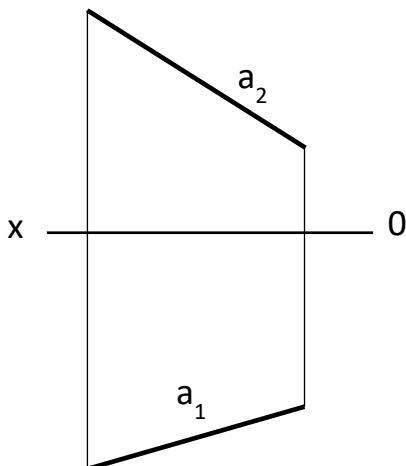
**2-masala.** C nuqta a to'g'ri chiziqqa tegishli. C nuqtani yetishmayotgan  $C_2$  frontal proeksiyasini toping



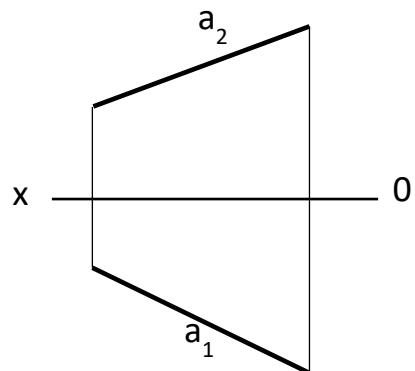
**3-masala.** a to'g'ri chiziqni teng 5 bo'lakka bo'ling



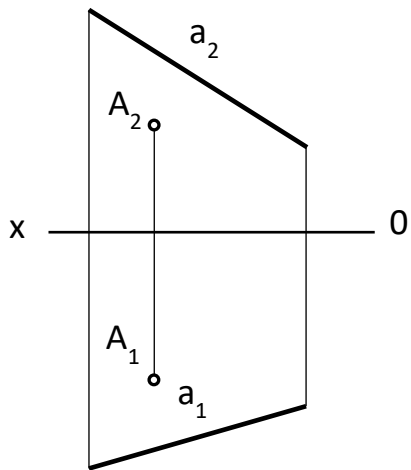
**4-masala.** a to'g'ri chiziqni teng 3 bo'lakka bo'ling



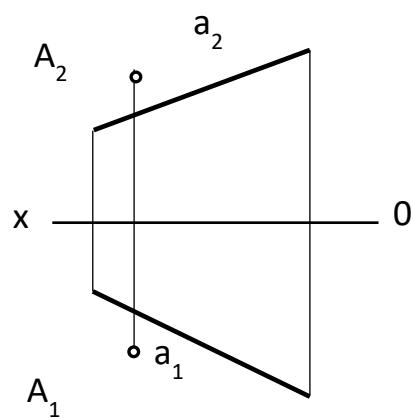
**5-masala.** a to'g'ri chiziqni 2/5 nisbatda bo'ling va o'sha nuqtani K harfi bilan belgilang



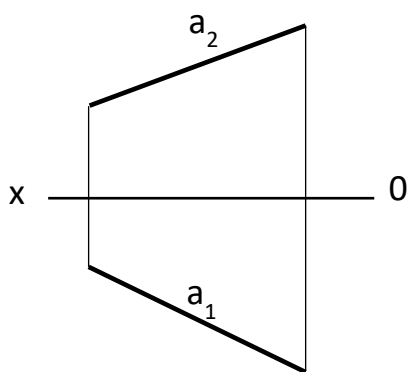
**6-masala.** a to'g'ri chiziqni teng 1/3 nisbatda bo'ling o'sha nuqtani M harfi bilan belgilang



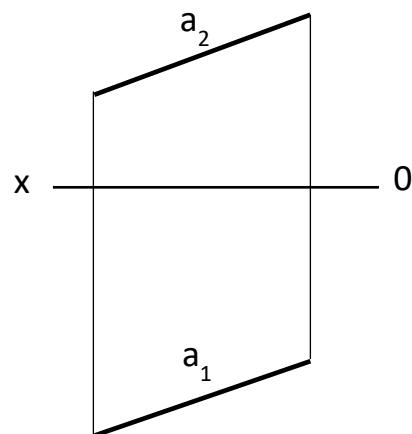
**7-masala.** a to'g'ri chiziqqa A nuqtadan parallel b to'g'ri chiziq o'tkazing va kesishgan nuqtasini aniqlang



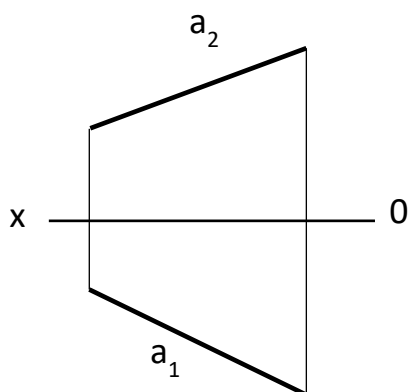
**8-masala.** a to'g'ri chiziqqa A nuqtadan parallel b to'g'ri chiziq o'tkazing va kesishgan nuqtasini aniqlang



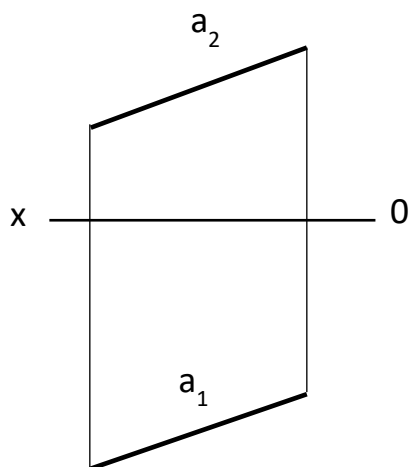
**9-masala.** a to'g'ri chiziqning haqiqiy kattaligini toping



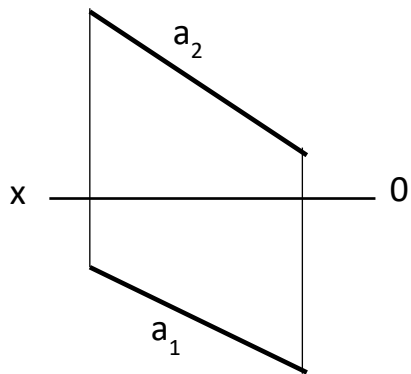
**10-masala.** a to'g'ri chiziqning haqiqiy kattaligini toping



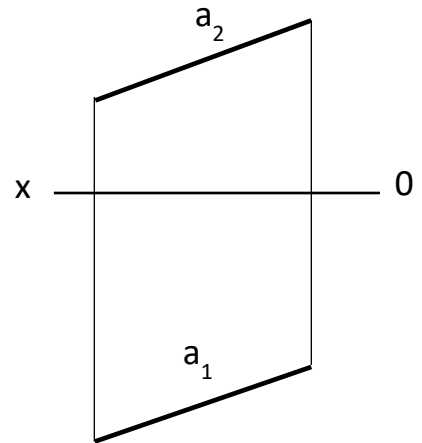
**11-masala.** a to'g'ri chiziqning haqiqiy kattaligini aylantirish usulida toping



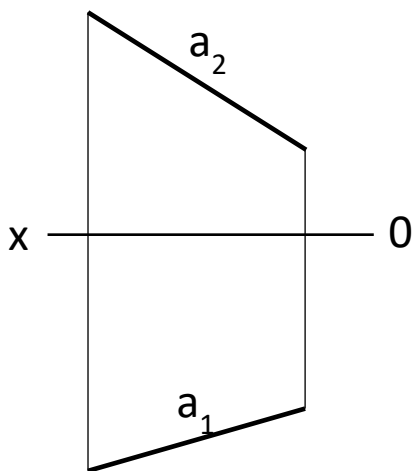
**12-masala.** a to'g'ri chiziqning haqiqiy kattaligini proeksiyalarni tekisligini almashtirish



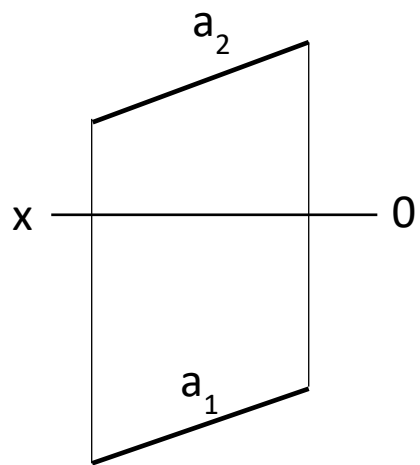
13-masala. a to'g'ri chiziqning haqiqiy kattaligini toping



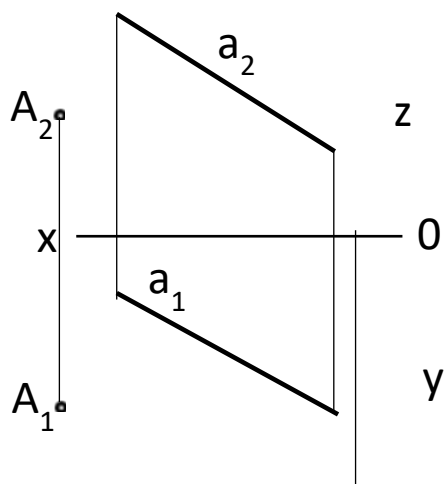
14-masala. a to'g'ri chiziqning haqiqiy kattaligini toping



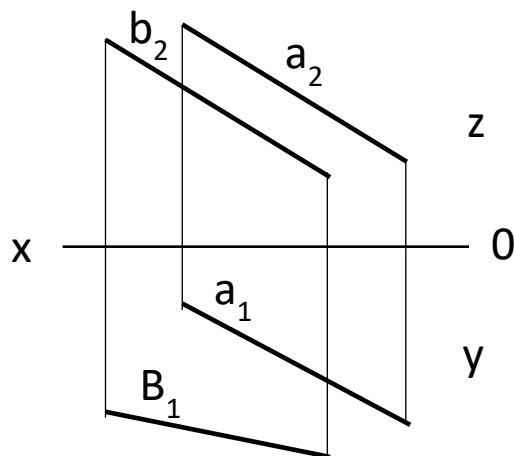
15-masala. Gorizontal H proeksiya tekislikka parallel va 20 mm masofada b to'g'ri chiziq o'tkazing va a to'g'ri chiziq bilan kesishgan nuqtasini aniqlang



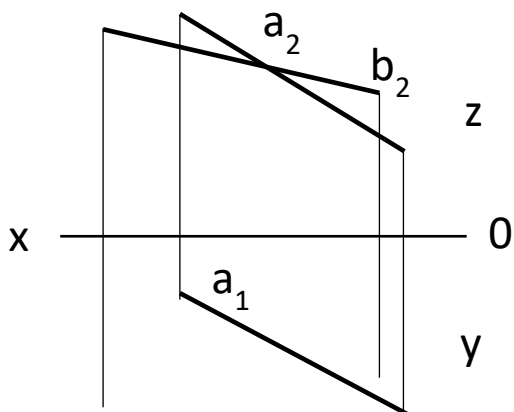
16-masala. Frontal V proeksiya tekislikka parallel va 20 mm masofada b to'g'ri chiziq o'tkazing va a to'g'ri chiziq bilan kesishgan nuqtasini aniqlang



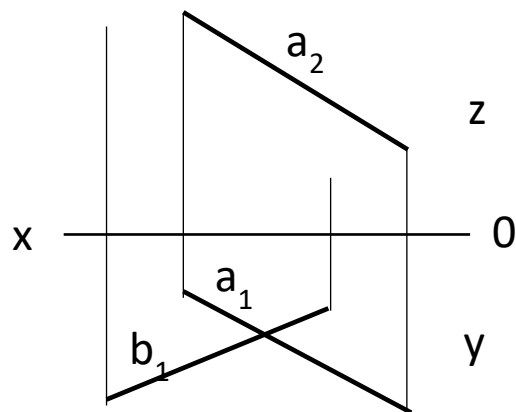
17-masala. A nuqtadan shunday to'g'ri chiziq o'tkazinki, o'tkazilgan to'g'ri chiziq a to'g'ri chiziq va z o'qini kesib o'tsin.



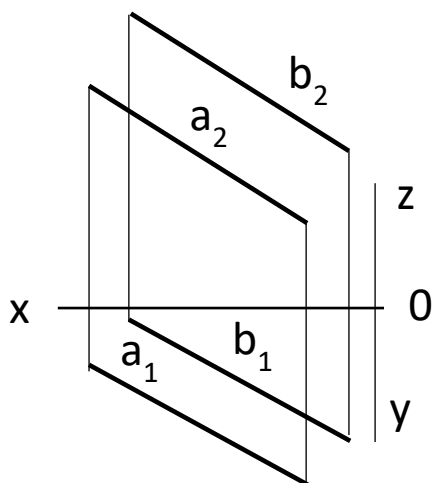
18-masala. Shunday to'g'ri chiziq o'tkazinki, o'tkazilgan to'g'ri chiziq a va b to'g'ri chiziqni kesib o'tsin



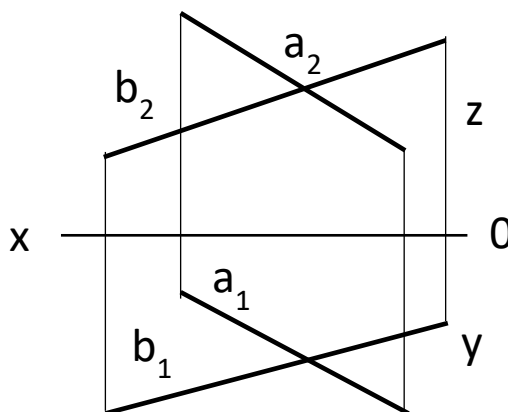
19-masala.  $a$  va  $b$  to'g'ri chiziq o'zaro kesishgan.  $b$  to'g'ri chizining yetishmayotgan gorizonttal proeksiyasini



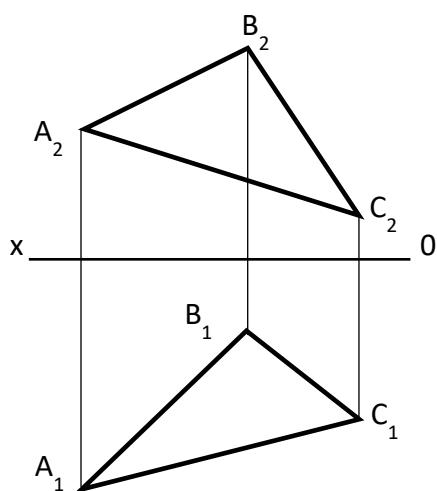
20-masala.  $a$  va  $b$  to'g'ri chiziq o'zaro kesishgan.  $b$  to'g'ri chizining yetishmayotgan frontal proeksiyasini



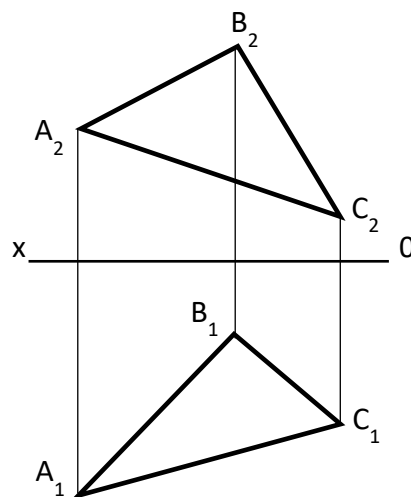
21-masala. Shunday to'g'ri chiziq o'tkazinki, o'tkazilgan to'g'ri chiziq  $a$  va  $b$  to'g'ri chiziqlarni kesib o'tsin.



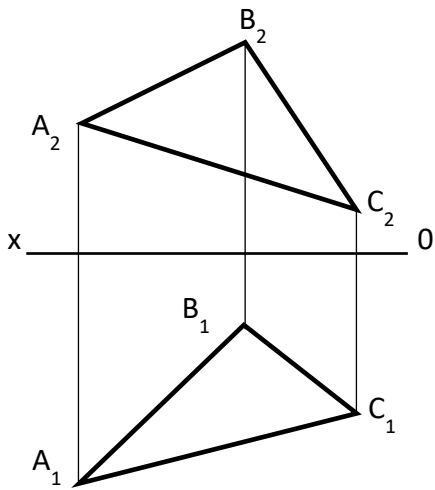
22-masala. Shunday to'g'ri chiziq o'tkazinki, o'tkazilgan to'g'ri chiziq  $a$  va  $b$  to'g'ri chiziqlarni kesib o'tsin



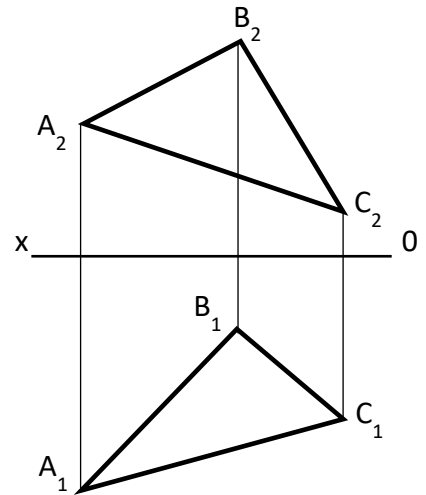
23-masala. ABC tekislikka gorizonttal



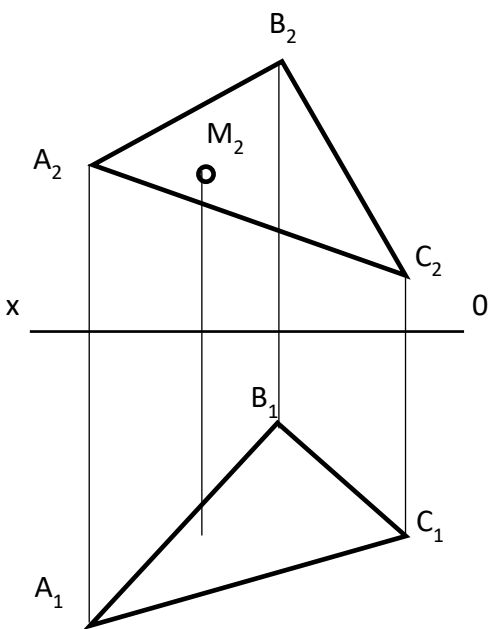
24-masala. ABC tekislikka frontal



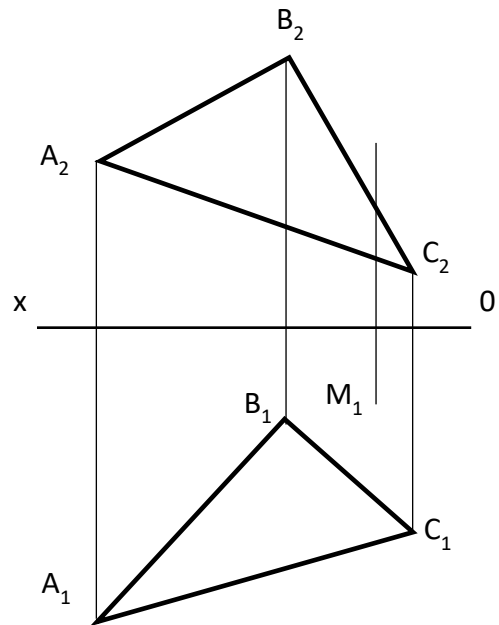
25-masala. ABC tekislikka gorizontal



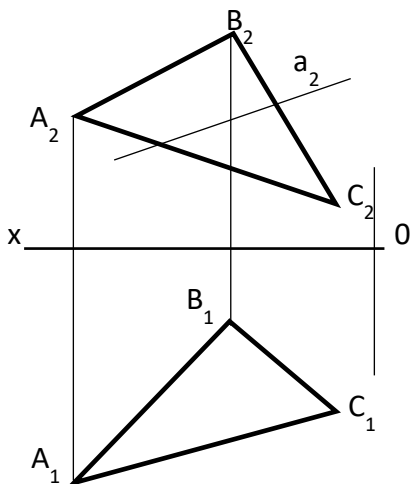
26-masala. ABC tekislikka frontal



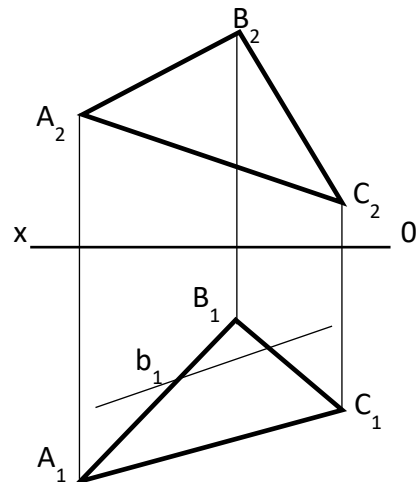
27-masala. M nuqta ABC tekislikka tegishli. M nuqtani gorizontal proeksiyasini quring



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

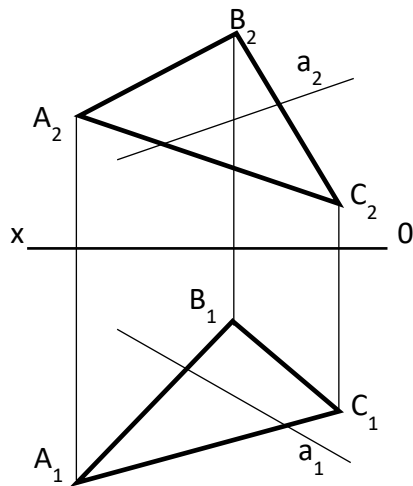


29-masala. a to'g'ri chiziq ABC tekislikka tegishli. a to'g'ri chiziqning

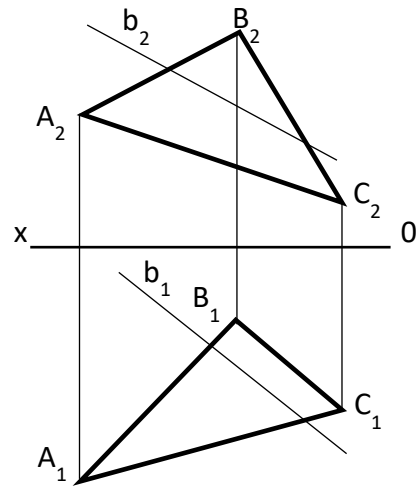


30-masala. b to'g'ri chiziq ABC tekislikka tegishli. a to'g'ri chiziqning frontal proeksiyasini aniqlang

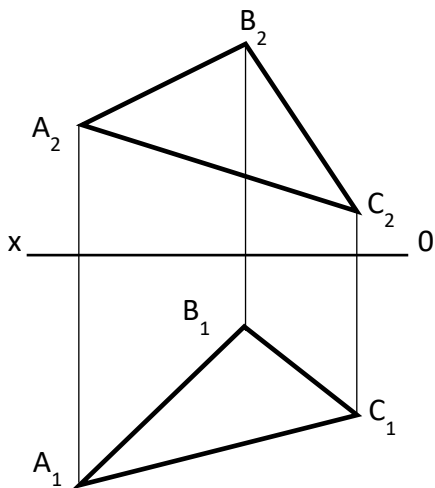
## 2-amaliy ish uchun topshiriqlar



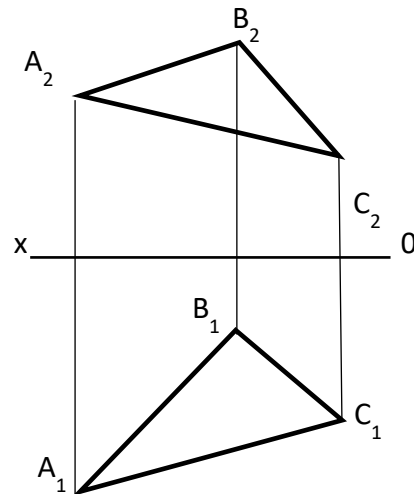
**1-masala.**  $a$  to'g'ri chiziq va ABC tekislikni kesishish



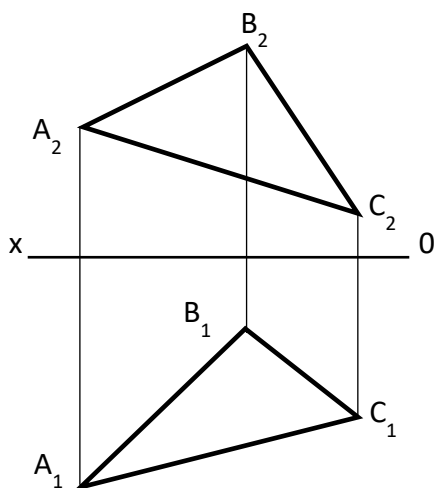
**2-masala.**  $a$  to'g'ri chiziq va ABC tekislikni kesishish nuqtasini toping



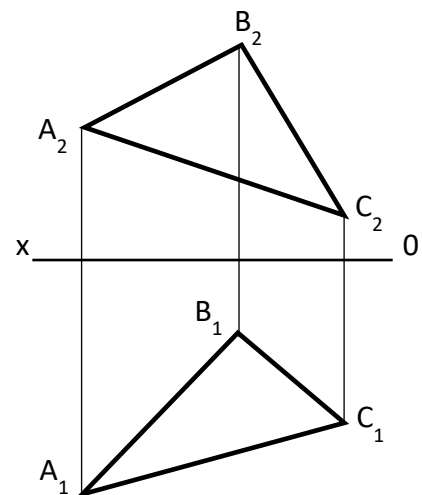
**3-masala.** ABC tekislikka ixtiyoriy masofada parallel  $\alpha$  tekislik quring



**4-masala.** ABC tekislikka ixtiyoriy masofada parallel  $\beta$  tekislik quring

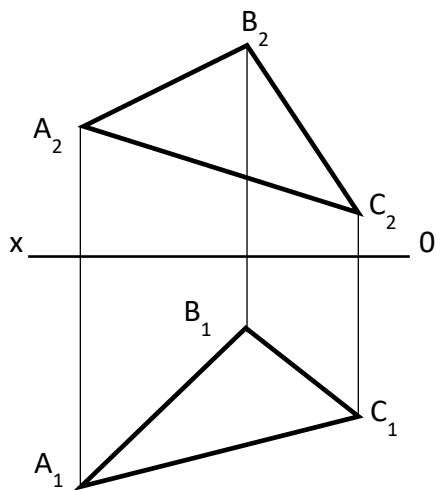


**5-masala.** ABC tekislikka ixtiyoriy masofada parallel  $c$  to'g'ri chiziq tushuring.

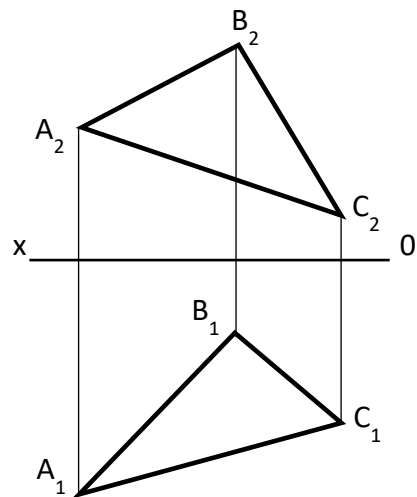


**6-masala.** ABC tekislikning AB tomoniga ixtiyoriy masofada parallel  $b$  to'g'ri chiziq tushuring

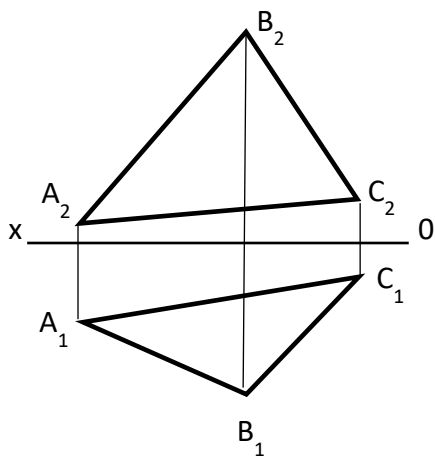




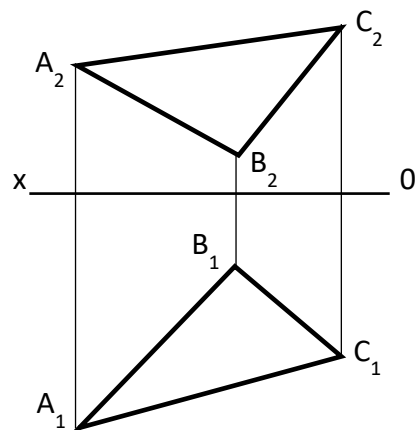
**7-masala.** ABC tekislikning AC tomoniga ixtiyoriy masofada parallel  $c$  to'g'ri chiziq



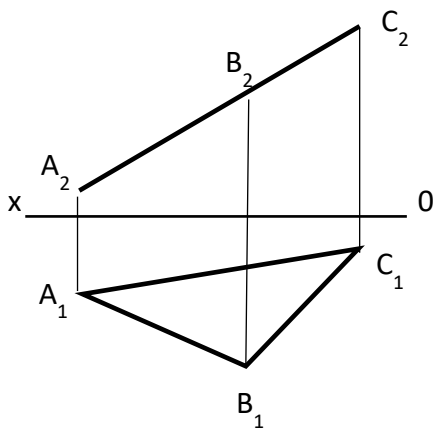
**8-masala.** ABC tekislikning BC tomoniga ixtiyoriy masofada parallel  $b$  to'g'ri chiziq tushuring



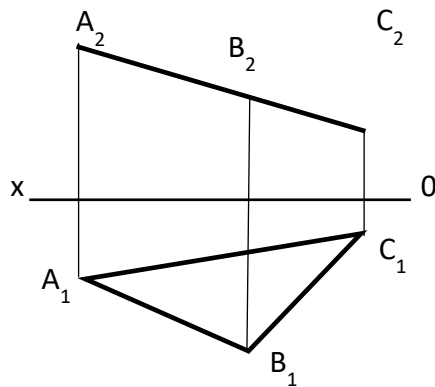
**9-masala.** ABC tekislikka ixtiyoriy nuqtadan perpendikulyar tushuring.



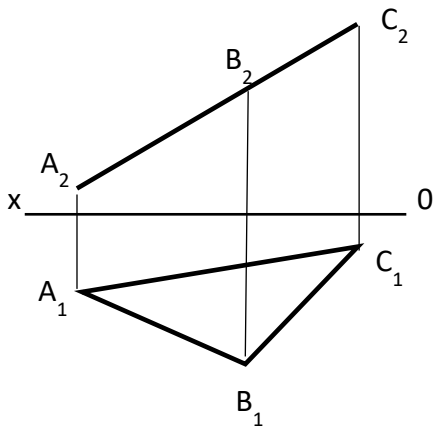
**10-masala.** ABC tekislikka A nuqtadan perpendikulyar tushuring.



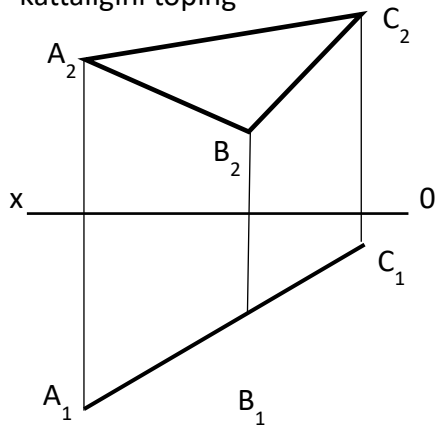
**11-masala.** ABC tekislikni aylantirish usulida haqiqiy kattaligini toping



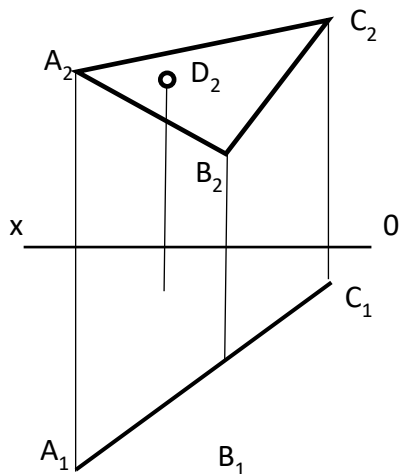
**12-masala.** ABC tekislikni aylantirish usulida haqiqiy kattaligini toping



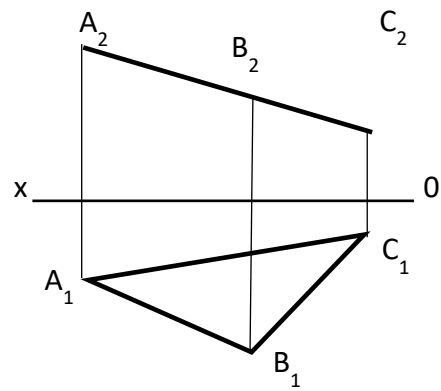
13-**masala.** ABC tekislikni proektsiyalar tekisligini almashtirish usulida haqiqiy kattaligini toping



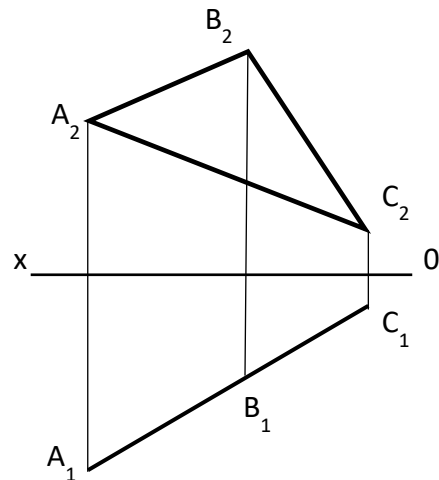
15-**masala.** ABC tekislikni proektsiyalar tekisligini almashtirish usulida haqiqiy kattaligini toping



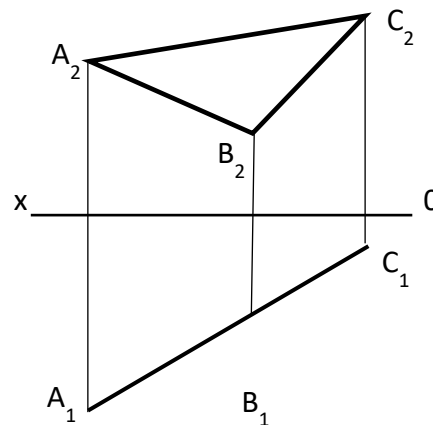
17-**masala.** D nuqta ABC tekislikka tegishli. D nuqtani yetishmayotgan proektsiyasini toping.



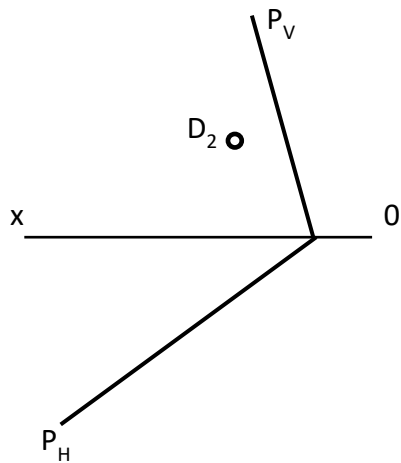
14-**masala.** ABC tekislikni aylantirish usulida haqiqiy kattaligini toping



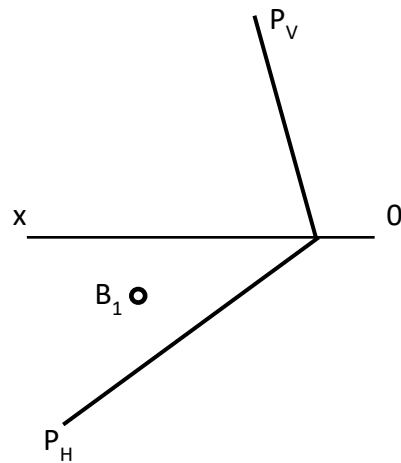
16-**masala.** ABC tekislikni proektsiyalar tekisligini almashtirish usulida haqiqiy kattaligini toping



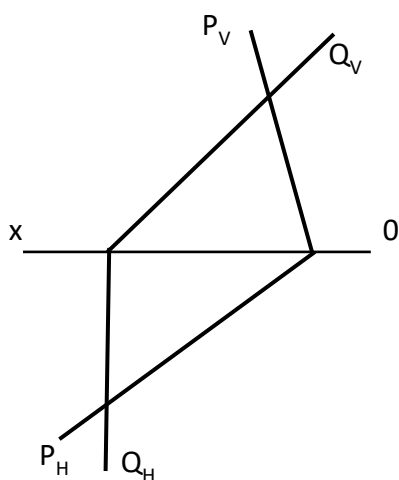
18-**masala.** ABC tekislikni tekis parallel harakatlantirish usulida haqiqiy kattaligini toping



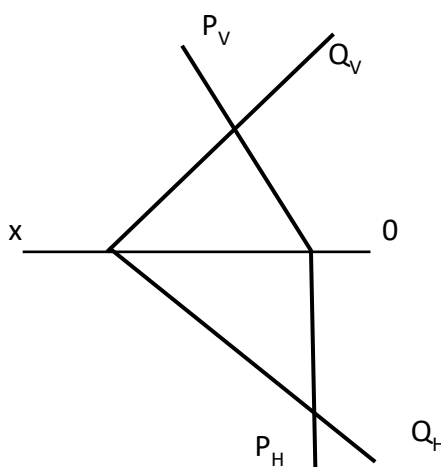
19-**masala.** D nuqta ABC tekislikka tegishli. D nuqtani yetishmayotgan proeksiyasini toping.



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

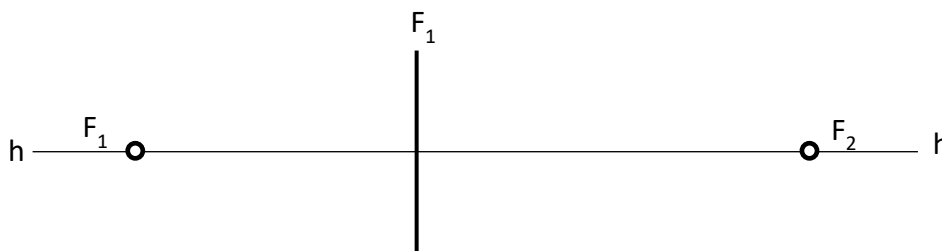


21-**masala.** P(  $P_H P_V$  ) va Q(  $Q_H Q_V$  ) tekisliklarini kesisish chizig'ni aniqlang

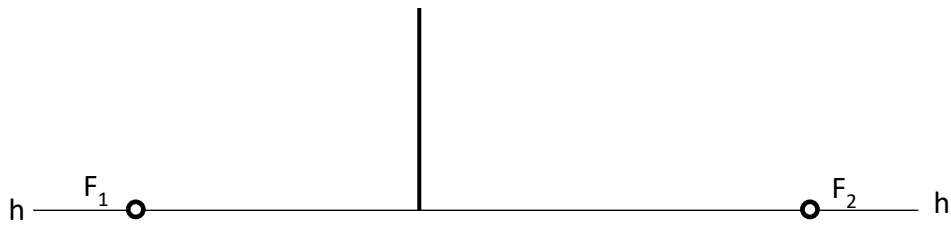


22-**masala.** P(  $P_H P_V$  ) va Q(  $Q_H Q_V$  ) tekisliklarini kesisish chizig'ni aniqlang

Perspektiva



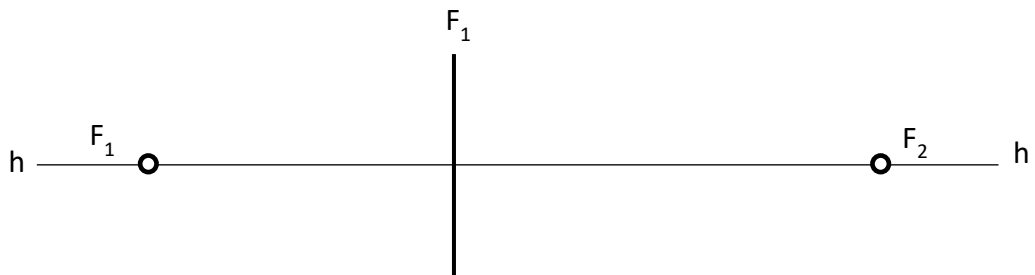
23-**masala.** Kubning kartina tekisligiga tegib turgan qirradi haqiqiy kattalikda ufq chizigining h-h balandligii va parallel to'g'ri chiziqlarning uchrashuv  $F_1$  va  $F_2$  nuqtalari berilgan. Kubning perspektivasini bajaring



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

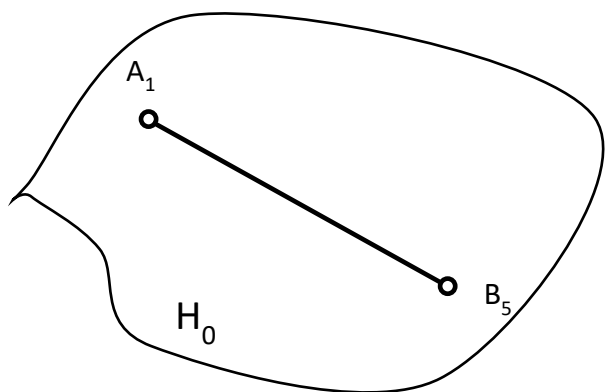


25-**masala.** Kubning kartina tekisligiga tegib turgan qirrasining o'chami, ufq chizigining h-h balandligii va parallel to'g'ri chiziqlarning uchrashuv  $F_1$  va  $F_2$  nuqtalari berilgan. Kubning perspektivasini bajaring

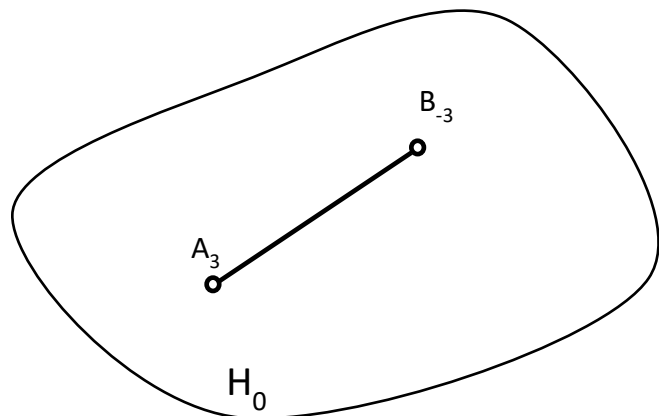


26-**masala.** Kubning kartina tekisligiga tegib turgan qirrasini haqiqiy kattalikda ufq chizigining h-h balandligii va parallel to'g'ri chiziqlarning uchrashuv  $F_1$  va  $F_2$  nuqtalari berilgan. Kubning perspektivasini bajaring

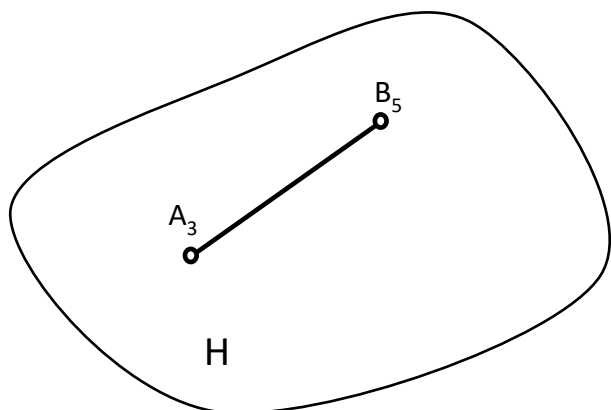
Son belgili proeksiya



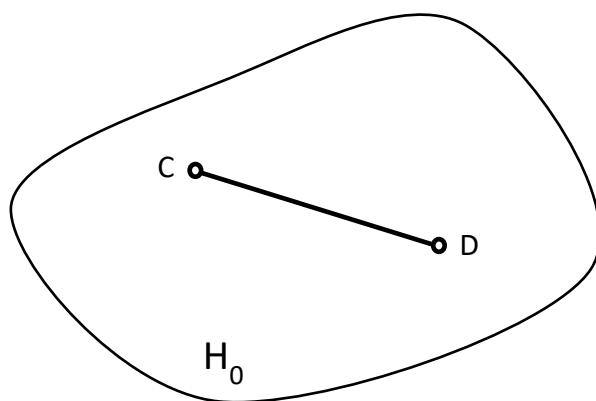
27-**masala.** AB kesmani haqiqiy kattaligini aniqlang



28-**masala.** AB kesmani haqiqiy kattaligini aniqlang

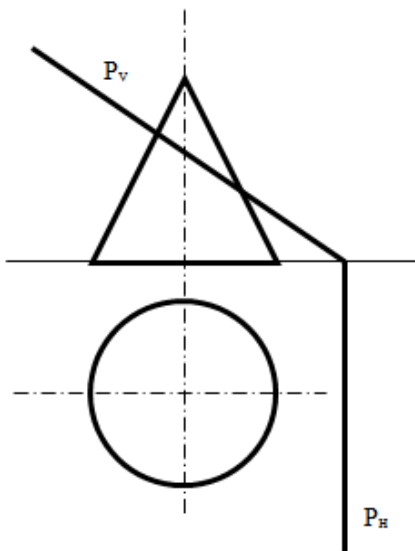


29-**masala.**  $A_3B_5$  to'g'ri chiziqqa parallel bo'lgan CD to'g'ri chiziq chizing

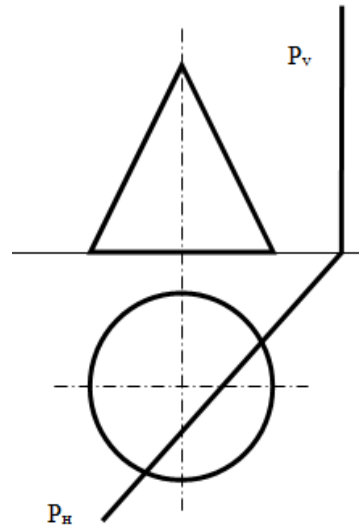


30-**masala.**  $H_0$  tekislikka 5 m balandlikda parallel bo'lgan CD to'g'ri chiziq chizing

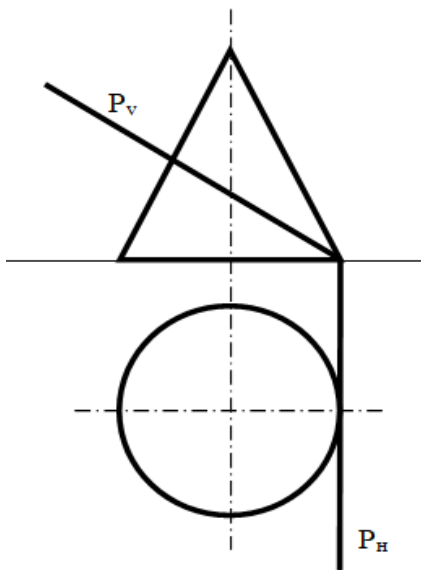
### 3-amaliy ish uchun topshiriqlar



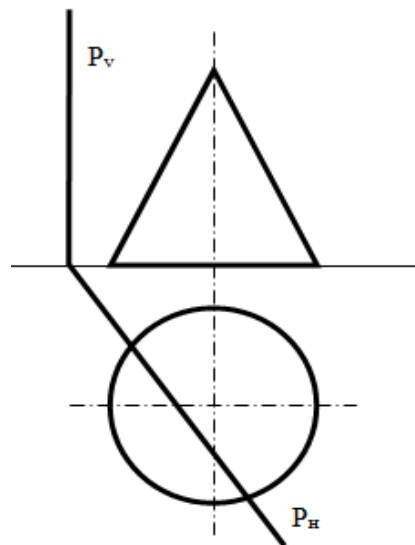
**1-masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



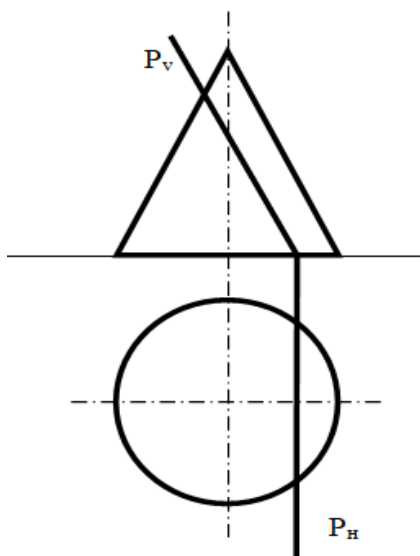
**2-masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



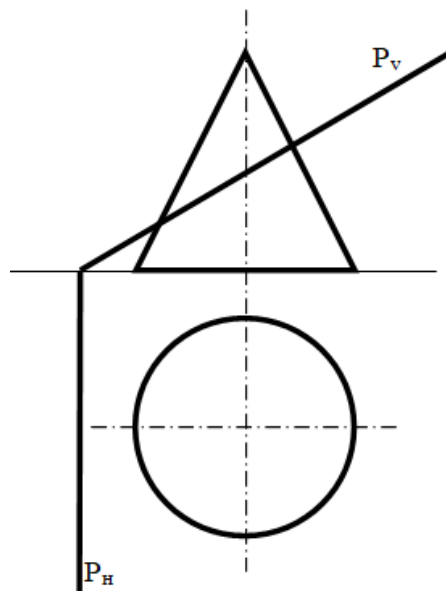
**3-masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



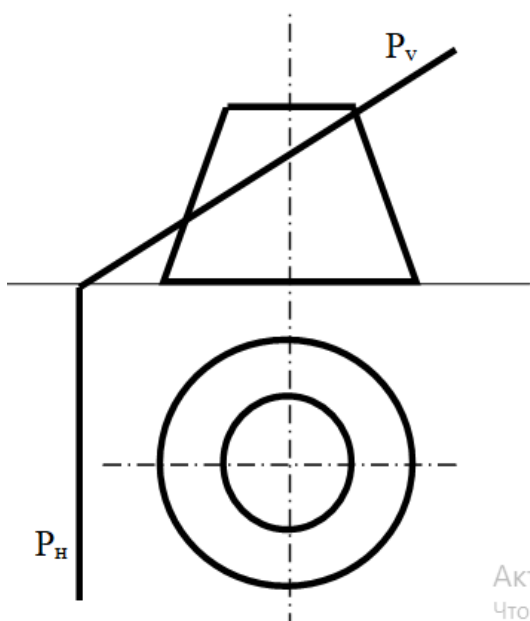
**4-masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



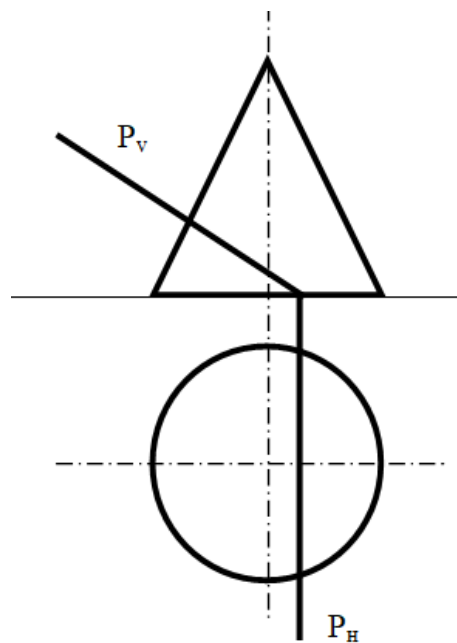
**5-masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



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

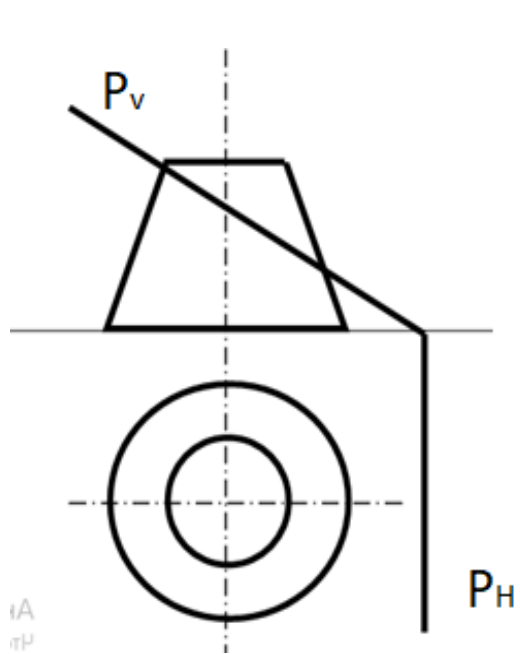


**7-masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang

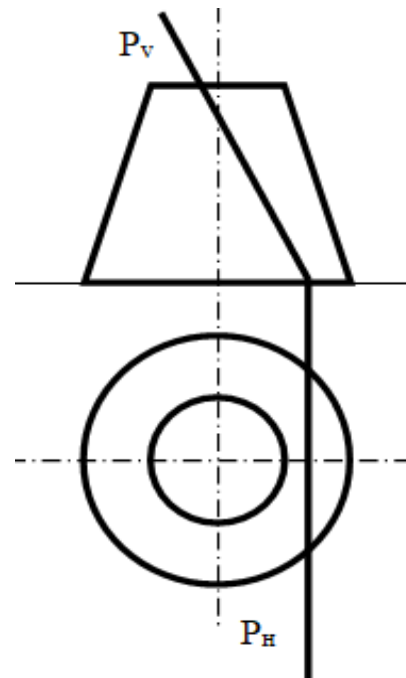


**8-masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang

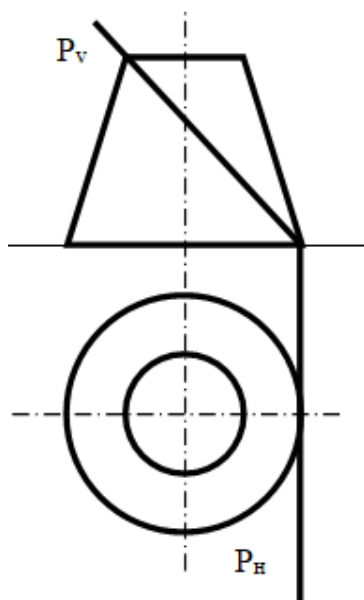
АКТИ  
Чтобы



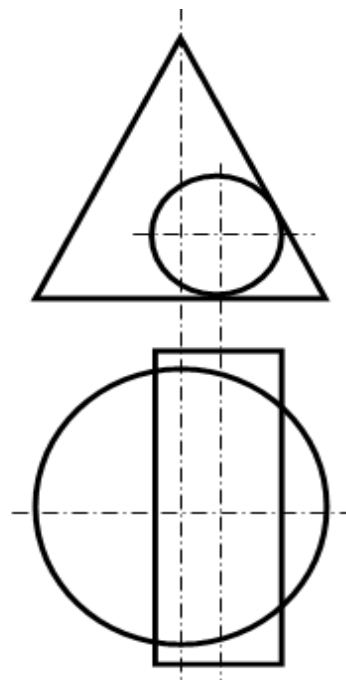
9-**masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



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

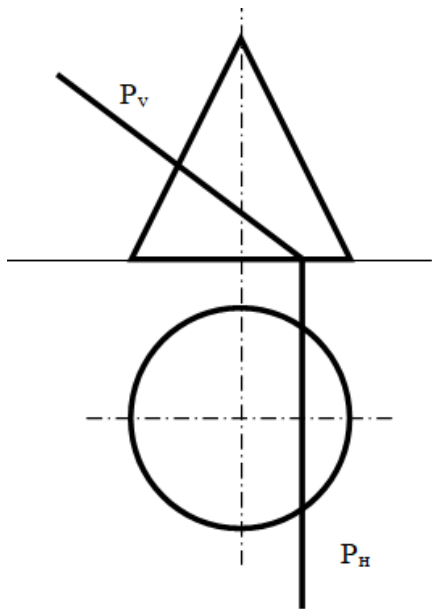


11-**masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang

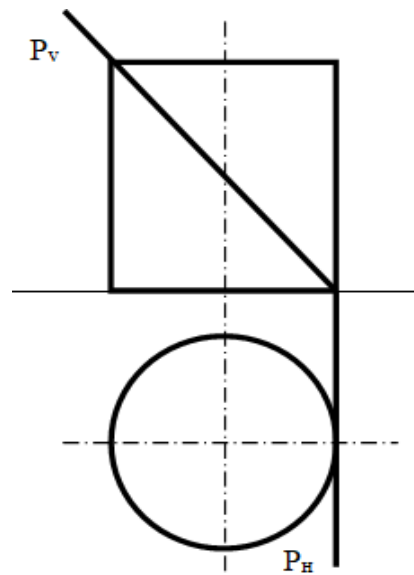


12-**masala.** Konus bilan silindrni o'zaro kesishish chizig'ini quring

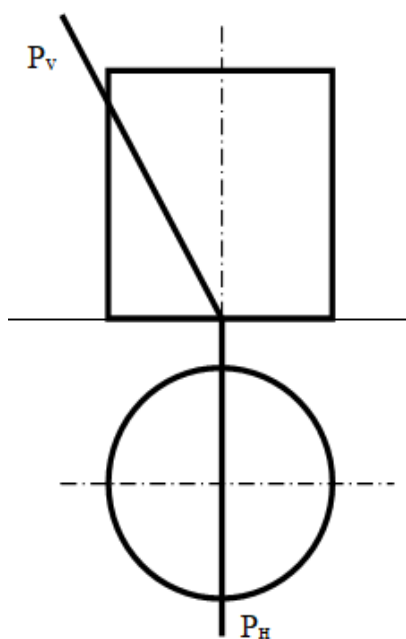




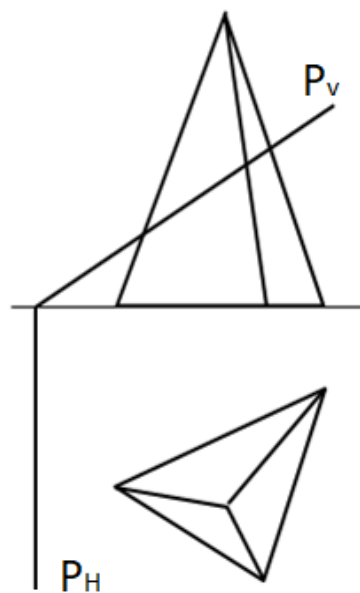
13-**masala.** Konusni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



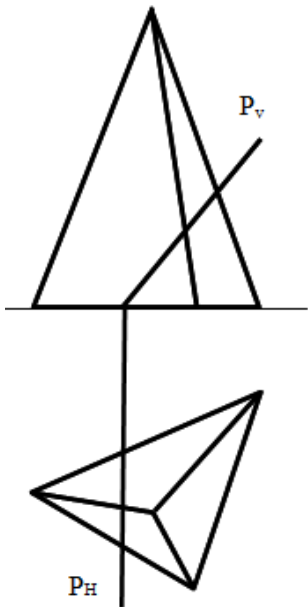
14-**masala.** Silindrni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



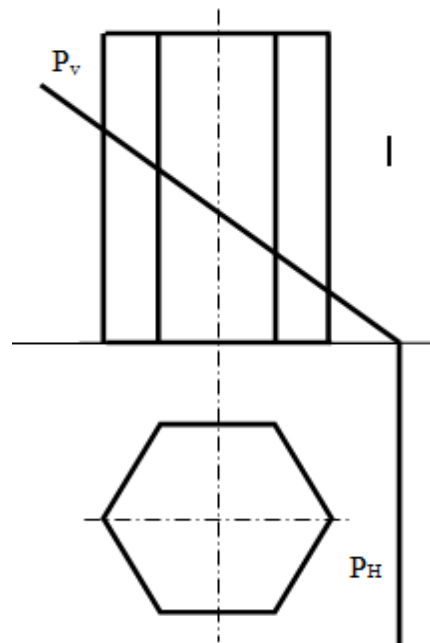
15-**masala.** Silindrni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



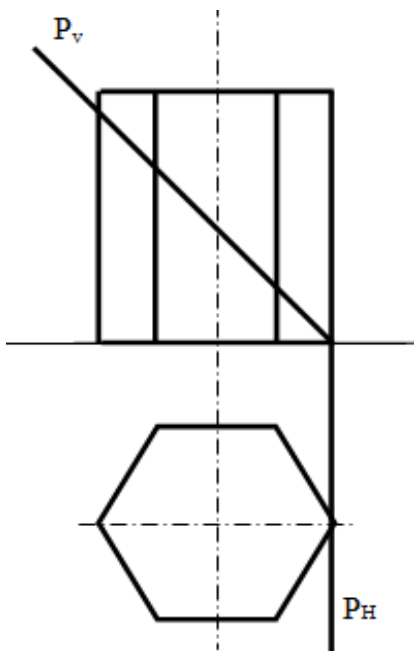
16-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



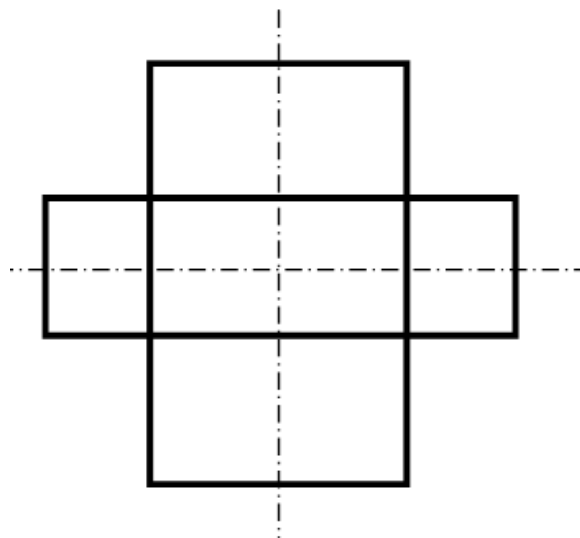
17-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



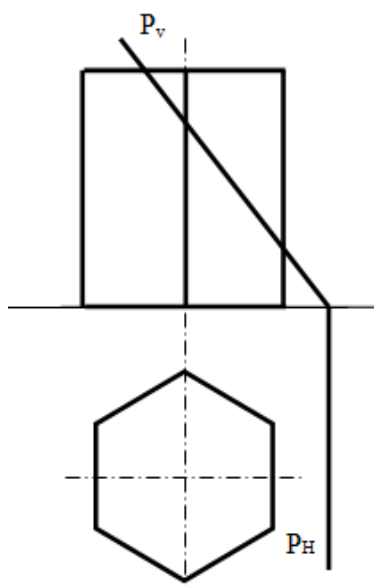
18-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



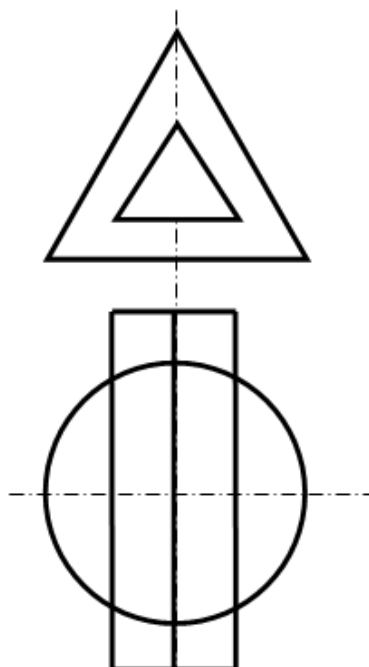
19-**masala.** Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



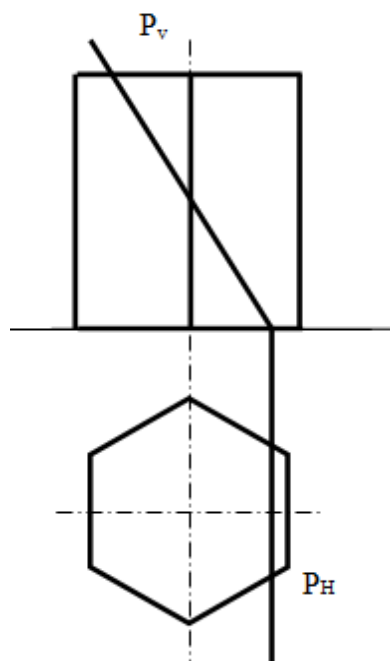
20-**masala.** Ikki silindrning o'zaro kesishish chizig'ini quring



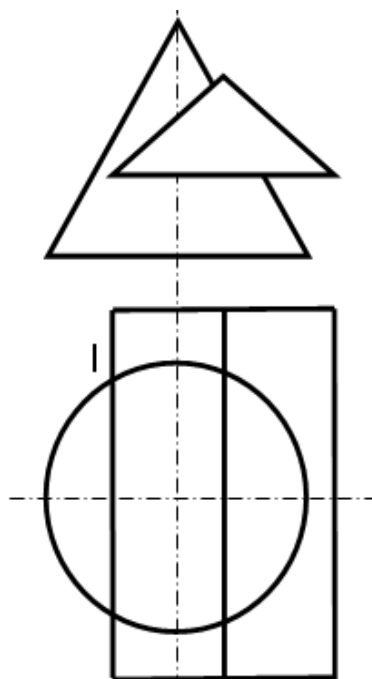
21-masala. Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



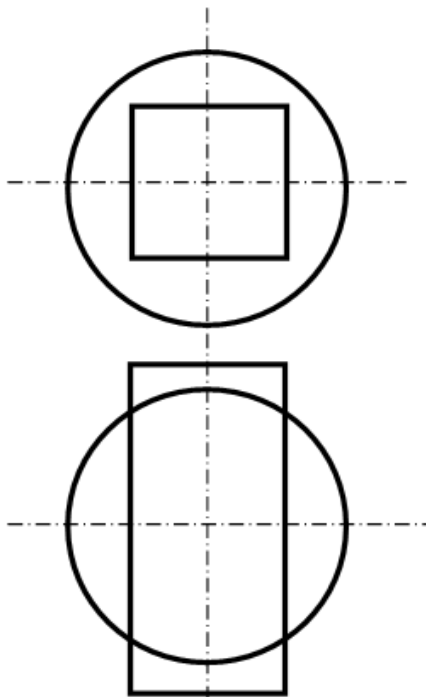
22-masala. Konus bilan prizmani o'zaro kesishish chizig'ini quring



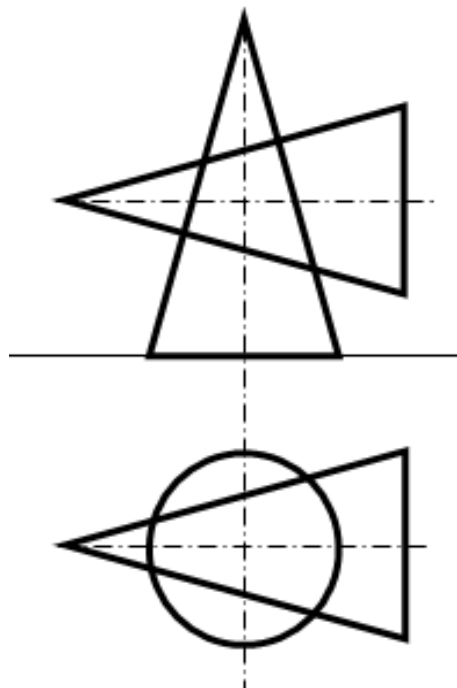
23-masala. Ko'pyoqni tekislik bilan kesilishi va kesim yuzani haqiqiy kattaligini aniqlang



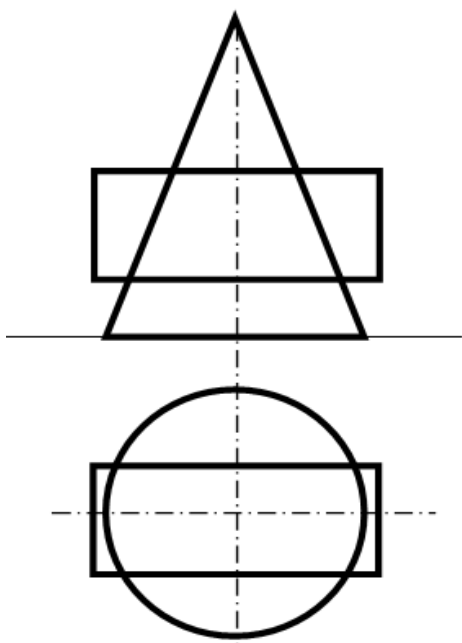
24-masala. Konus bilan prizmani o'zaro kesishish chizig'ini quring



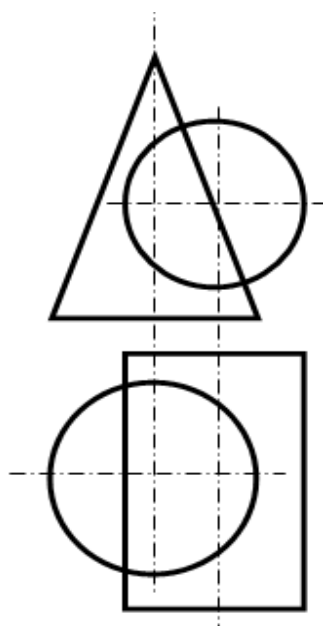
25-**masala.** Shar bilan prizmani o'zaro kesishish chizig'ini quring



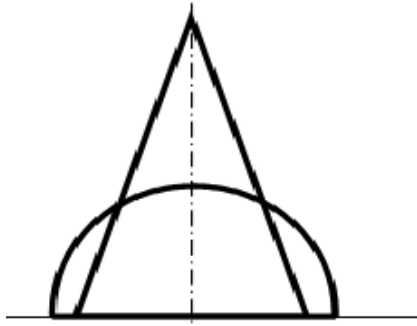
26-**masala.** Konus bilan konusni o'zaro kesishish chizig'ini quring



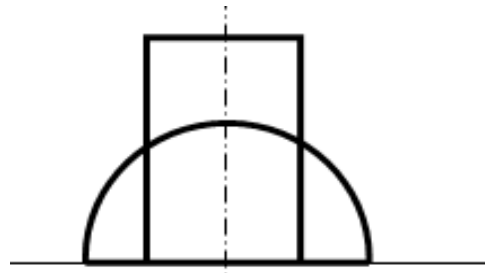
27-**masala.** Konus bilan silindrni o'zaro kesishish chizig'ini quring



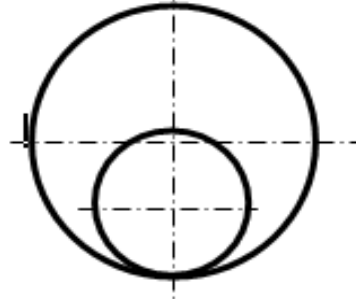
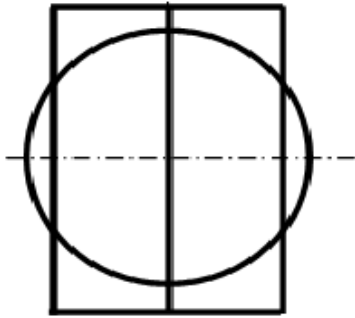
28-**masala.** Konus bilan silindrni o'zaro kesishish chizig'ini quring



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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