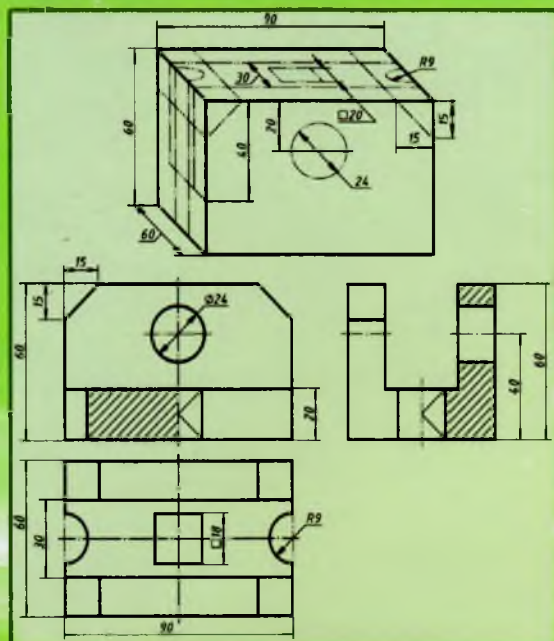




GULOMOVA NOZIMA XOTAMOVNA

CHIZMACHILIK

(LOYIHALASH)

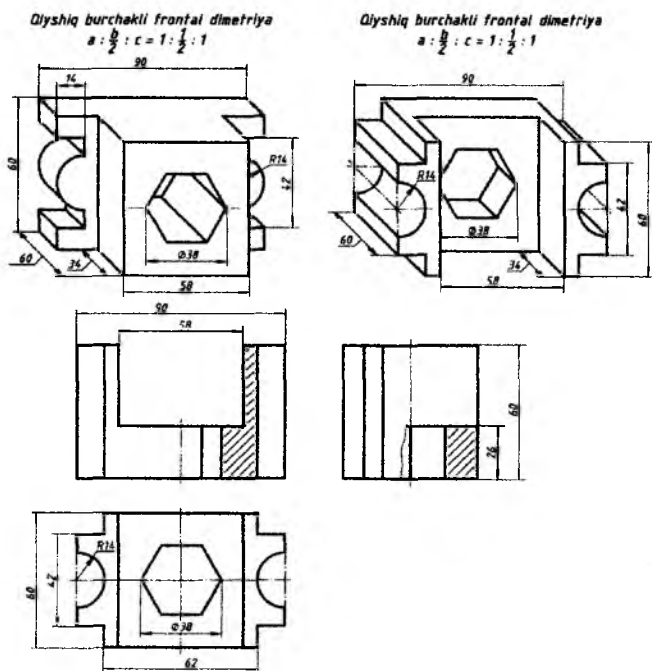


TOSHKENT 2015

**O'ZBEKISTON RESPUBLIKASI
OLIY VA O'RTA MAXSUS TA'LIM VAZIRLIGI
NIZOMIY NOMIDAGI TOSHKENT DAVLAT
PEDAGOGIKA UNIVERSITETI**

GULOMOVA NOZIMA XOTAMOVNA

CHIZMACHILIK (Loyihalash)



Annotatsiya

Metodik qo'llanma chizmachilik fanining "Loyihalash" bo'limiga mo'ljallangan. Unda talabalarning fazoviy tafakkurini shakllantirib, u orqali ularning fazoviy tasavvurini o'stirish nazarda tutilgan. Mustaqil shug'ullanib nazariy bilim olishlari uchun asosiy va tayanch tushunchalar, amaliy ishlar bajarishlari uchun esa topshiriqlar ishlanmalari va grafik ishlarning namunalari berilgan.

Muallif metodik qo'llanmadagi topshiriq variantlarini DTS talablariga va chizmachilik fani dasturi mazmuniga mos ravishda tuzgan.

Qo'llanmadan chizmachilik fani o'qitiladigan barcha pedagogika oily o'quv yurtlari talabalari hamda umumiy o'rta ta'lim maktab va o'rta maxsus ta'lim yurtlari o'qituvchilari ham foydalanishlari mumkin.

Muallif: N.X.Gulomova

Taqrizchilar: A.N.Valiyev, TDPU dotsenti
N. I.Hurboyev, TTESI dotsenti

Uslubiy qo'llanma Nizomiy nomidagi TDPU o'quv-uslubiy kengashining 2015 yil 22-oktyabrdagi 3-sonli yig'ilishi bayonnomasi qarori bilan nashrga tavsiya etilgan.

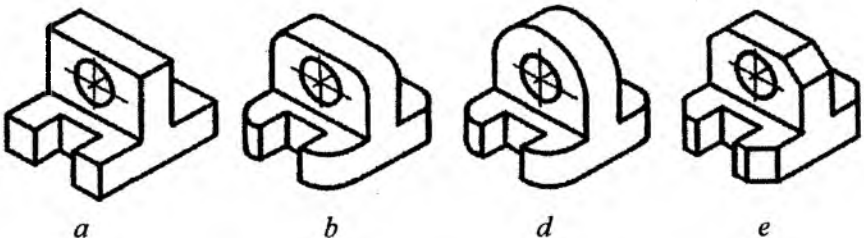
KIRISH

Konstruktor mehnatini o'z ichiga olgan masalalarni o'rganish va ularni imkon qadar yechishga harakat qilish orqali loyihalashga ijodiy yondashish mumkin. Konstruktiv elementlar (teshiklar, o'yiqlar, bo'rtiqlar va boshqalar) shakliga biroz o'zgartirish kiritish orqali buyumning o'g'irligini kamaytirish, pishiqligini oshirish, ishlov berishni soddalashtirish, foydalanishga qulaylik yaratish, ko'rinishini ko'rinimli-chiroyli bo'lishligiga erishish mumkin. Bu o'ziga xos sermehnat ish bo'lib, idrokli va sabr-toqatli bo'lishni talab qiladi.

Loyihalashni o'rganish maqsadida bir qator ijodiy masalalarni yechib mashq qilinadi. Buning uchun turli moslamalarni yasash bilan shug'ullanish, ba'zi qo'polroq ishlangan buyumlarni bejirim, o'ziga jalb etadigan darajada qayta ishlash lozim bo'ladi. Bunga erishish uchun ularning shakliga o'zgartirishlar kiritiladi. Shundan keyin buyum go'zallashgan bo'lsa, u qayta badiiy loyihalangan bo'ladi.

Narsaning geometrivasini qisman qayta loyihalash. Amaldagi detalning ko'rinishini yoqimli va ko'rkam qilib o'zgartirib, vaznini kamaytirib, foydalanish uchun qulay qilib qayta loyihalashga *dizayn* deyiladi. Dizayn inglizchada "Dezing"-chizma, rasm, loyiha degani.

Masalan, 1-a chizmadagi detalning vazni (og'irligi)ni kamaytirish maqsadida, uning geometriyasi qisman dizayn talabida o'zgartirilgan. Natijada u 1-b, c, d chizmalardagi ko'rinishlarga kelgan.

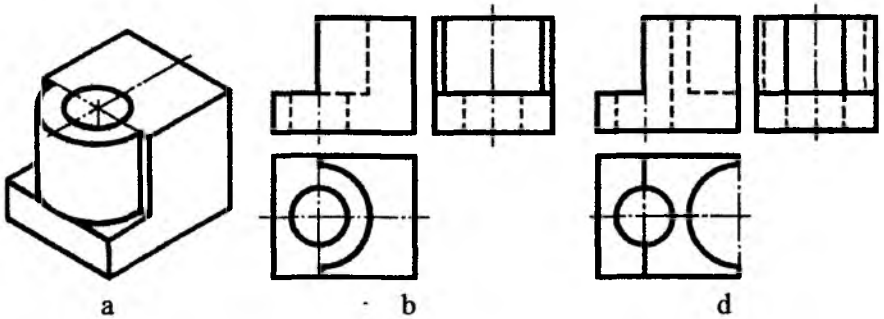


1-chizma

Detalga kiritilgan o'zgartirish chizma orqali amalga oshirilsa, *chizmani qayta ijodiy loyihalash* deyiladi. Detal shaklini fikran o'zgartirish, uni qayta ijodiy loyihalangan holatini tasavvur qilish o'quvchida fikrlash qobiliyatini o'stiradi. Chizmaga ijodiy loyihalash elementlarini kiritish orqali turli muammolarni yechish mumkin bo'ladi.

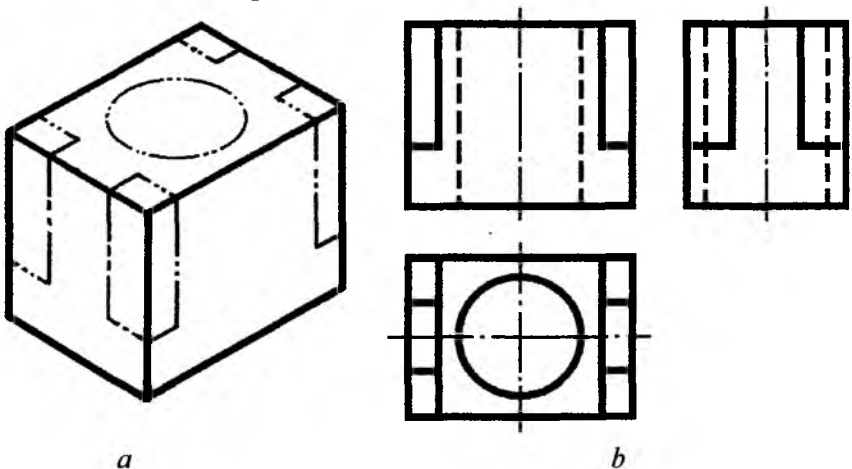
Detal shakliga o'zgartirish kiritish. Detal shakliga o'zgartirish kiritish deganda, undagi bo'rtib turgan qismlarini xuddi o'shanday chuqurchalarga (va aksincha) almashtirish hamda detal qismlarini ma'lum burchakka burish yoki surish kabilar tushuniladi.

2-a chizmadagi detalning yarim silindrik bo'rtmasi shu o'lchamdagi yarim silindrik o'yiq bilan almashtirilgan. 2-b chizmada hosil bo'lgan detalning ko'rinishlari va yaqqol tasviri berilgan. Bu masalani 2-chizma d dagi variantda ham yechish mumkin.



2-chizma

Xomaki tanani o'yib detal hosil qilish. 3-chizma a da detalning xomaki tanasi ikki nuqtali chiziqlar bilan belgilab berilgan. 3-b chizmada belgilangan chiziqlar bo'yicha ortiqcha qicmlar olib tashlanganda hosil bo'lgan detal tasvirlangan.

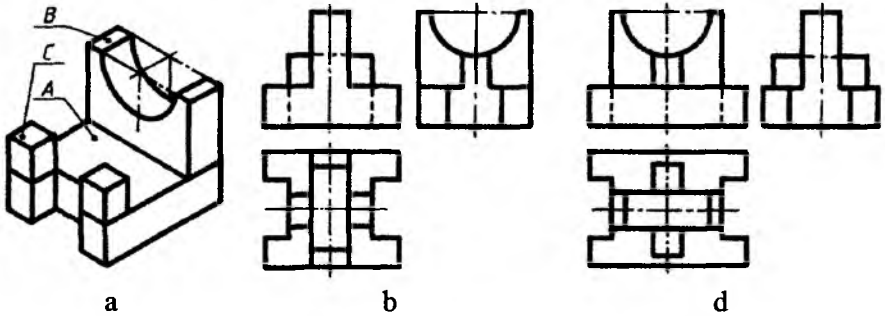


3-chizma

Detal ko‘rinishini, uning qismlarini surish hamda burish orqali o‘zgartirish. 4-chizmada detal *A*, *B*, *D* bo‘laklardan tashkil topgan bo‘lib, uning *B* bo‘lagi asosi *A* ning o‘rtasiga, *D* bo‘laklari *B* ning ikkala tomoniga tayanch vazifasini o‘taydigan vaziyatga fikran surilsin va ko‘rinishlari chizilsin.

Detal *A* chizib olinadi va uning o‘rtasiga *B* bo‘lak chiziladi. Keyin *D* bo‘laklari *B* ning ikkala tomoniga chizib chiqiladi (4-b chizma). Detal bir butun deb qaraladi va bo‘laklari orasidagi ajratuvchi chiziqlar o‘chirib tashlanadi.

Detalning *B* bo‘lagini *A* ga nisbatan ko‘ndalang qo‘ymasdan 90° burchakka burib joylashtirsa ham bo‘ladi. U vaqtda detal 4-d chizmadagidek ko‘rinishga ega bo‘ladi.



4-chizma

Yangi buyumlar ixtiro qilinayotganda yoki amaldagilarni takomillashtirish jarayonida javob ikki va undan ortiq, ya‘ni ko‘p turda bo‘lsa, unda masala ijodiy hisoblanadi. Konstruktor loyihalash jarayonida shunday ko‘p turdagi yechimga duchor kelib qolsa, o‘zining eng yuqori darajasi-ijodiy faoliyatini ishga solib texnik, texnologik hamda iqtisodiy masalalar shartlarini hisobga olgan holda yechimning eng optimal variantini tanlaydi. Shunda u o‘z maqsadiga erishadi.

Detalga foydali o‘zgartirish kiritish lozim bo‘lsa, u vaqtda, detalga kiritilishi kerak bo‘lgan o‘zgartirish sharti yozma ravishda beriladi va u orqali detalning yangi chizmasi chiziladi.

Texnik detallarni shakllantirish

Detallar quyma, bolg‘alash, shtamplash, dastgohda ishlov berish yo‘li bilan tayyorlanadi. Detal modelining shakli qancha sodda bo‘lsa, u

shuncha oson tayyorlanadi va arzoniga tushadi.

Mashinasozlik amaliyotida tekis sirtli va aylanish sirtli detallardan ko'proq foydalaniladi. Chunki, mavjud stanok (dastgoh) larda ularni tez, oson va arzon tayyorlashga erishish mumkin. Frezerlash, randalash, zarblash, revolverlik va tokarlik dastgohlarida tekis va aylanish sirtlariga osongina ishlov beriladi.

Murakkab shaklga ega bo'lgan detallarni quyish yo'li bilan hosil qilinadi. Detalni individual va kam seriyada ishlab chiqarishda, u po'lat va rangli materiallarning bo'lagidan bolg'alash, cho'kichlash yo'li bilan hosil qilinadi. Ommaviy seriyada ishlab chiqariladigan buyum detallari asosan issiq yoki sovuq shtampovkalash yo'li bilan bajariladi.

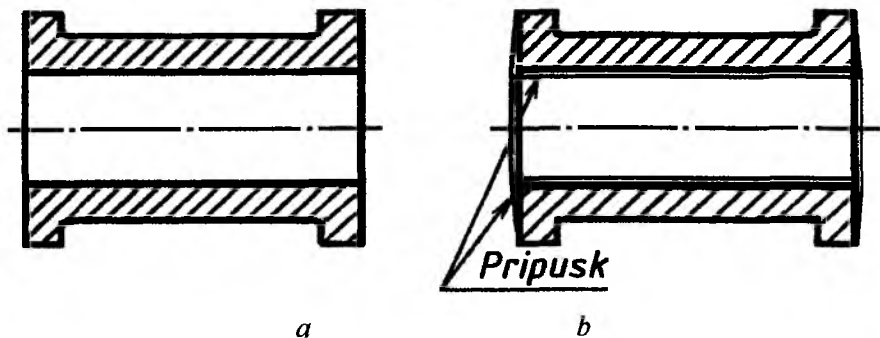
Shtampovka yo'li bilan olingan detallar aniqligi va ishlov berishda kam chiqindi chiqishligi bilan ajralib turadi. Ko'plab bir xil seriyada ishlab chiqariladigan rezkali biriktirish detallari ham sovuq avtomat tushirish presslarida tayyorlanadi. Bunday usulda tayyorlangan maxsulot sifatining yuqoriligi bilan ajralib, arzoniga tushadi.

Navli (sortli)-prokatlangan listli materiallardan aylanish, oval, kvadrat, to'g'ri to'rt burchakli, oltiburchakli, turli shakllardagi tekis detallar sovuq shtampovkalash yo'li bilan olinadi. Ko'pchilik hollarda zagotovkalar har xil usullarda tayyorlanib, ulardan iqtisod talab qilinadigan turi tanlab olinadi.

Detalning o'lchami, geometrik shakli, ishlatiladigan material, qancha dona ishlab chiqarilishi, bajarilishining aniqlik darajasi va ishlab chiqarish turiga qarab uning zagotovkasi (keyinchalik, ishlov berib tayyor buyumlar olinadigan chala mahsulot) tanlanadi.

Quyma va shtampovkalash yo'li bilan hosil qilinadigan detal zagotovkasi oldindan tozalash, to'g'rilash, shilish, tekislash, torets (silindrsimon, prizmatik detallarning tashqi yoki ichki sirtlariga ishlov berish jarayoni) lash, markazlash kabi ishlov beriladi.

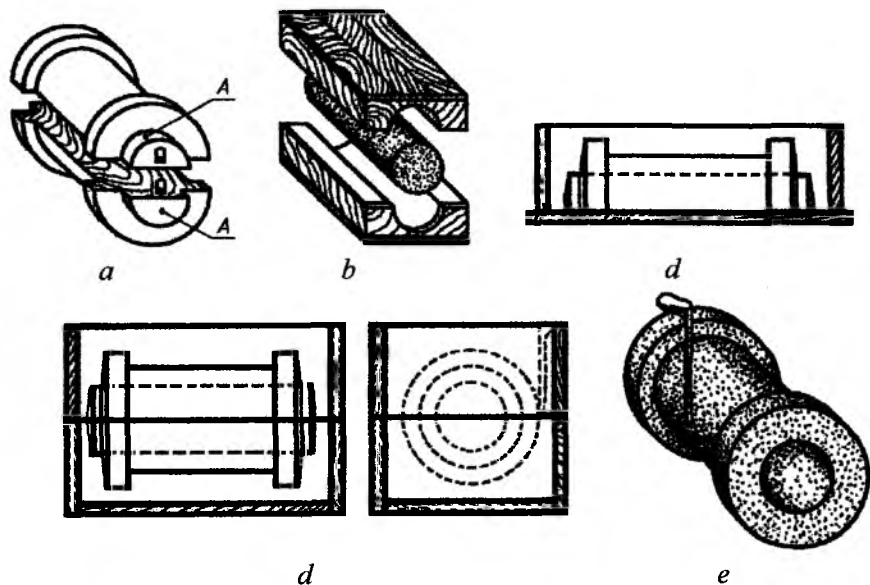
Mashinaning quyma detali yoki zagotovkasini eritilgan metallni formaga quyish yo'li bilan olinadi. Buning uchun oldin detalning ishchi chizmasi bo'yicha (5-a chizma) uning quyma chizmasi (5-b chizma) bajariladi. Unda mexanik ishlov berish hamda metallning cho'kishi va qisqarishini hisobga olgan holda o'lchami biroz (pripusk) kattalikda chiziladi.



5-chizma

Detalning quyma chizmasiga binoan, uning modeli bajariladi. Formada teshikka mo'ljallangan sterjenni mustahkamlanishi uchun pripusk *A* qo'shib tayyorlanadi. Modellar asosan formovkalash oson bo'lishi uchun ko'pincha ikkita bo'lak qilib tayyorlanadi (6-*a* chizma).

Sterjen sexida sterjen qutisi (yashik) da silindrik teshik uchun birlashtiruvchi material yordamida qumdan sterjen tayyorlanadi (6-*b* chizma).



6-chizma

Formovkalash sexida model bo'yicha ikkita ramkada opoka (bir martalik

qumli qoliplarni tayyorlashda va metall quyishda qolip aralastirmasini turtib turadi, opoka-kulrang yoki qora rangli qattiq mikro-g'ovakli yengil mineral jins) deb nomlanuvchi forma tayyorlanadi (6-d va e chizmalar).

Metall eritish sexida suyuq metall formaga quyiladi. Metall qotgandan so'ng forma buziladi va hosil bo'lgan detaldan ortiqcha quyilgan metall olib tashlanadi (6-e chizma).

Qirqish, tozalash kabi bo'limda quyma detal barcha ortiqcha narsalardan holis bo'lishi uchun mexanik ishlov berish sexiga yuboriladi. So'ngra tayyor mahsulotlar omboriga topshiriladi.

Konstruktorlik (loyihalash) masalalari

Umuman olganda konstruktorlik (loyihalash) masalalarini uch guruhga bo'lish mumkin: konstruktiv, texnologik va ekspluatatsiya qilish.

Konstruktiv masalalar:

-buyum detallarining qulay tuzilishini ta'minlovchi konstruksiyasining prinsipl sxemasini ishlab chiqish;

-buyumni yig'ish va ajratish qulay bo'ishlik, konstruksiyasining soddaligi;

-buyumni bo'laklarga ajratish, montaj qilish (o'rnatish) va rostlashni qulayligini ta'minlay olish;

-detallarga materialni oqilona to'g'ri tanlash, zagatovkani tayyorlashda eng kam material, ishlov berishda minimal vaqt sarflash;

-detallarga oichamlar qo'yishda baza tanlash tizimini to'g'ri tanlash;

-detallarga ishlov berishda sirtlarida hosil bo'ladigan g'adir- budirlik o'rtasidagi qo'yilmalar oqilona asoslangan bo'lishi;

-buyumdagi detallarning o'zaro almashuvchanligini ta'minlash;

-buyumdagi detallar va ularning elementlari (rezba, teshik, diametr, radius kabilar) da materialning bir xilligini ta'minlash.

Texnologik masalalar:

-buyumni ishlab chiqarishga tayyorgarlik vaqtini kamaytirishga berilgan miqyosda erishish;

-buyumni yig'ish va ishlov berishda zamonaviy tipovoy va ilg'or texnologik jarayonlardan foydalanish;

-imkon boricha yangi nazorat qilish moslamalaridan foydalanish;

-ishlab chiqariladigan buyumning yuqori sifatligiga erishish.

Ekspluatatsiya (ishlatish) masalalari:

- buyumning ishonchliligi va chidamliligini ta'minlash; -
- ekspluatatsiya sifatlarining barqarorligi;
- ishlatishda va ta'mirlashda oddiyligi;
- buyumning og'irliligini kamaytirishga erishish.

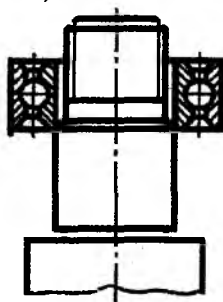
Buyumni loyihalash bosqichlari.

Yangi buyumlarni konstruksiyalashga quyidagilar kiradi: -prognoz qilish (oldindan aytib berish);

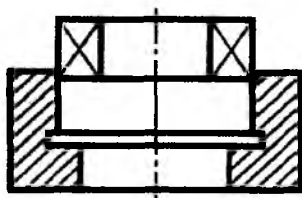
- loyihalash (konstruktorlik hujjatlarini ishlab chiqish); -
- konstruktorlik hujjatlar bo'yicha ishlab chiqarishga tayyorlash;
- ishlab chiqarishni o'zlashtirish.

Loyihalashga mashqlar.

1. Podshipnikni valga o'tqazadigan moslama loyihalansin (7-chizma).
2. Poshipnikni korpusga o'tqazadigan moslama loyihlansin (8-chizma).



7-chizma



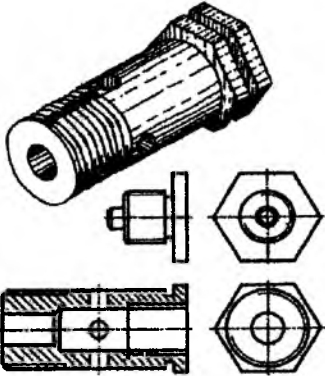
8-chizma

Salnikli birikma moslamasini loyihalash.

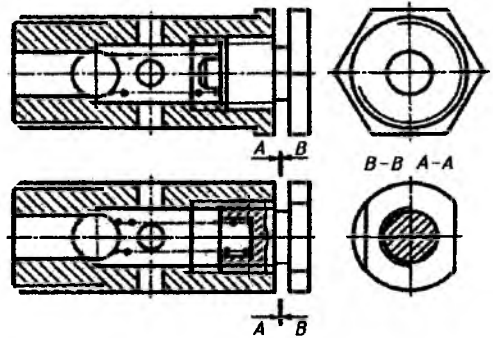
Harakatlanuvchi detal (vallar, shtoklar, shpindellar) bilan qo'zg'almas korpus orasidagi tirqishini germetik berkitib turadigan tiqinli tuzulma salnikli moslama hisoblanadi. Tiqin moslamaning umumiy ko'rinishini texnik rasmda chizib ko'riladi (9-chizma). Korpus va qopqoqning eskizlari chiziladi. Shunda detallarda qanday kamchiliklar mavjudligi ko'zga tashlanadi. So'ngra moslamaning yig'ilgan holdagi yig'ish chizmasi bajariladi. Materialni tejash va uning ko'rinishini yaxshilash maqsadida moslamaning bir nechta variantlari izlab ko'riladi. Ulardan qaysi biri ma'qul bo'lsa o'sha varianti tanlab olinadi. Masalan,

10-chizmadagi varianti qulay hisoblanadi.

Endi bu moslama-klapani ishlab chiqarishga joriy qilish mumkinligini aniqlash uchun konstruktorlik, texnologik va ekspluatasiya qilish masalalari o'rganiladi, ya'ni sinovdan o'tkaziladi.



9-chizma



10-chizma

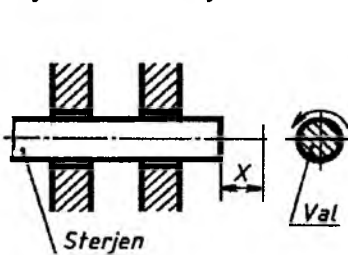
ILOVA

Ilovada loyihalashning har xil turlari bo'yicha grafik ishlar bajarish uchun namuna va topshiriqlar variantlari berilgan.

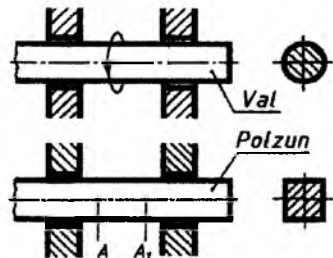
Berilgan sxema-chizma bo'yicha konstruksiyalash (loyihalash) uchun grafik ish variantlari

1-variant. Val ko'rsatilgan yo'nalish bo'yicha aylantirilganda, sterjen X masofaga yo'nalish bo'yicha siljigandan keyin, yana o'z o'miga darrov qaytsin. Shunday mexanizm loyihalansin.

2-variant. Polzun (sudraluvchi)dagi A nuqta val bir marta aylanishida A_1 masofaga surilsin. Polzunning siljishi ravon bo'lsin. Shunday mexanizm loyihalansin.



1-variant

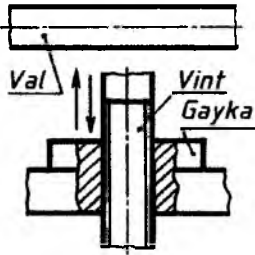


2-variant

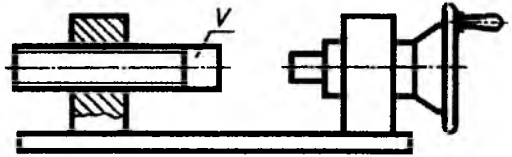
3-variant. Vintning vertikal bo'yicha ham yuqoriga, ham pastga

harakatini valning aylanish yo'nalishini o'zgartirmasdan qanday ta'minlash mumkin. Bu yerda bekorga (xolostoy) yurish ham ko'zda tutilgan holda loyihalansin.

4-variant. Chambarak (maxovik) aylantirilganda vint V ning ikkala tomonga gorizontaal harakat qilish jarayoni loyihalansin.



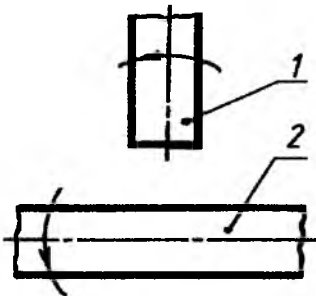
3-variant



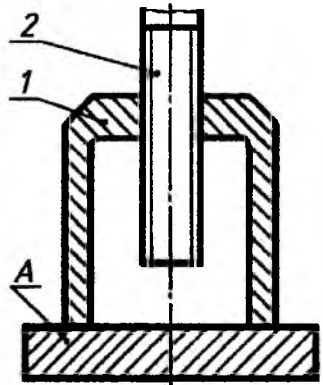
4-variant

5-variant. Birinchi yetakchi val bir tononlama, bir me'yorda aylanganda, qanday qilib ikkinchi valni ikki tomonlamma ravon aylanishiga majbur qilish mumkin. Shunday mexanizm loyihalansin.

6-variant. Silindrik stakan 1 jism A ga shunday mustahkamlansinki, vint 2 burilganda stakan aylanmasin. Vint 2 jism A ga taqalganda mustahkamlik o'z-o'zidan avtomatik tarzda buzilsin. Ushbu jarayon mexanizmi loyihalansin.



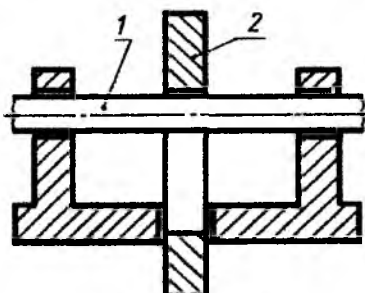
5-variant



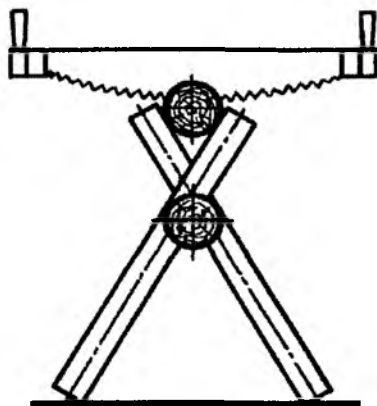
6-variant

7-variant. Val 1 aylantirilganda reyka 2 vertikal harakat qilishi ta'minlanadigan mexanizm loyihalansin.

8-variant. Ikki qo'lli arrada yog'ochni bir kishi aralaydigan moslama loyihalansin.



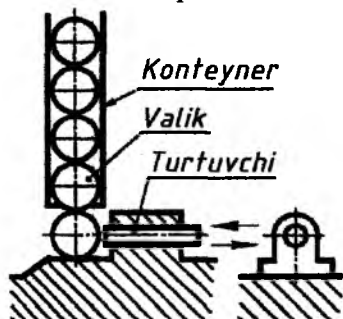
7-variant



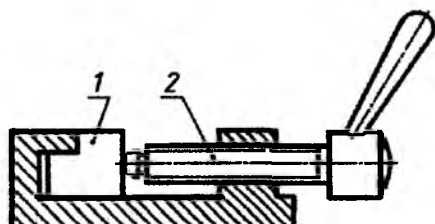
8-variant

9-variant. Konteynerdagi silindrik valiklarni bir me'yorda tashqariga, ya'ni pastga turtib chiqaruvchi mexanizm loyihalansin.

10-variant. Detallarni qisib turuvchi vintli moslamada kamchilik mavjud. Detal 1 ni chiqarib olish uchun vint 2 ni ko'p marta aylantirishga to'g'ri keladi. Moslamaning konstruksiyasiga shunday o'zgartirish kiritish kerakki, vintni bir yoki bir yarim marta aylantirishidan so'ng detal osonlikcha chiqarib olinsin. Shu jarayon loyihalansin.



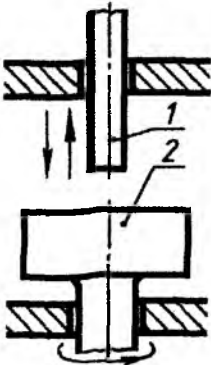
9-variant



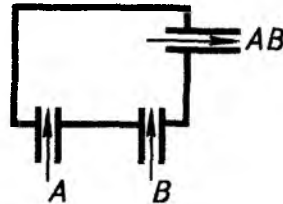
10-variant

11-variant. Ilgarilanma-qaytma harakat qiluvchi zveno 1 yetakchi hisoblanadi. Zveno 1 yuqoriga va pastga harakatlanayotganida detal 2 ni bir tomonloma aylanishini ta'minlaydigan mexanizm loyihalansin.

12-variant. Katta sig'imdagi idishda ikki hil M va N gaz aralashtirilib tarmoqqa yuboriladi. Gazlardan biri to'xtab qolsa, ularni darrov berkitadigan moslama loyihalansin.



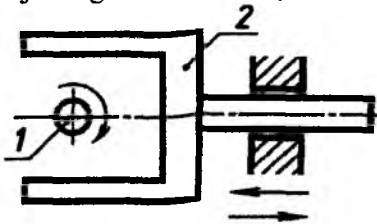
11-variant



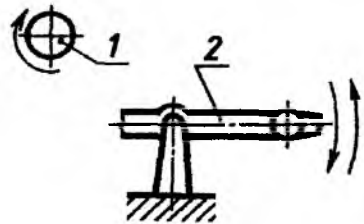
12-variant

13-variant. Yetakchi val 1 soat mili yo'nalishi bo'yicha aylanadi. Zveno 2 ni ilgari lanama-qaytma harakat qilishini ta'minlaydigan moslama loyihalansin.

14-variant. Bir meyorda aylanadigan val 1 va silkinadigan richag 2 berilgan. Valning bir marta aylanishida richag ikkita silkinishni bajaradigan moslama loyihalansin.



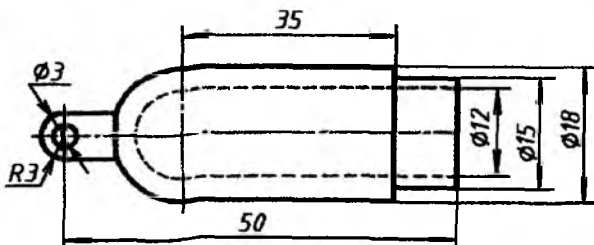
13-variant



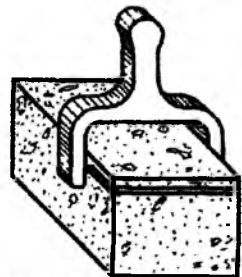
14-variant

15-variant. Ignalarni saqlanadigan g'ilofning bosh ko'rinishi berilgan, unga qopqoq loyihalansin va yig'ish chizmasi bajarilsin.

16-variant. Pishloq keskichning konstruktiv takomillashmagan tomonlari aniqlansin va uni takomillashtirib qulay keskich loyihalansin.

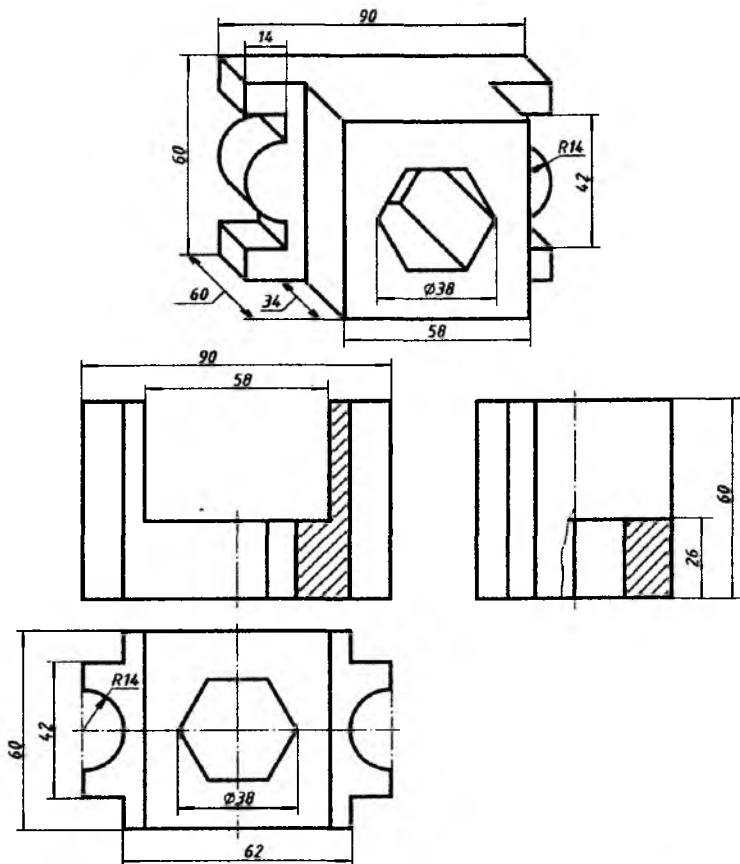


15-variant



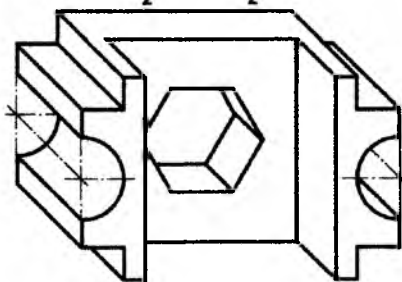
16-variant

Detalning bo'rtma qismlarini o'yiqlarga, o'yiq qismlarini esa bo'rtmalarga almashtirish uchun grafik ish namunasi va variantlari

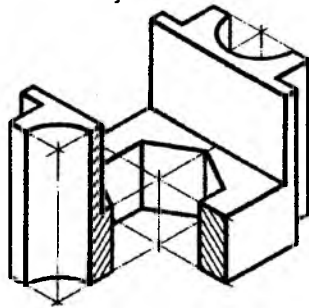


Qiyshiq burchakli frontal dimetriya

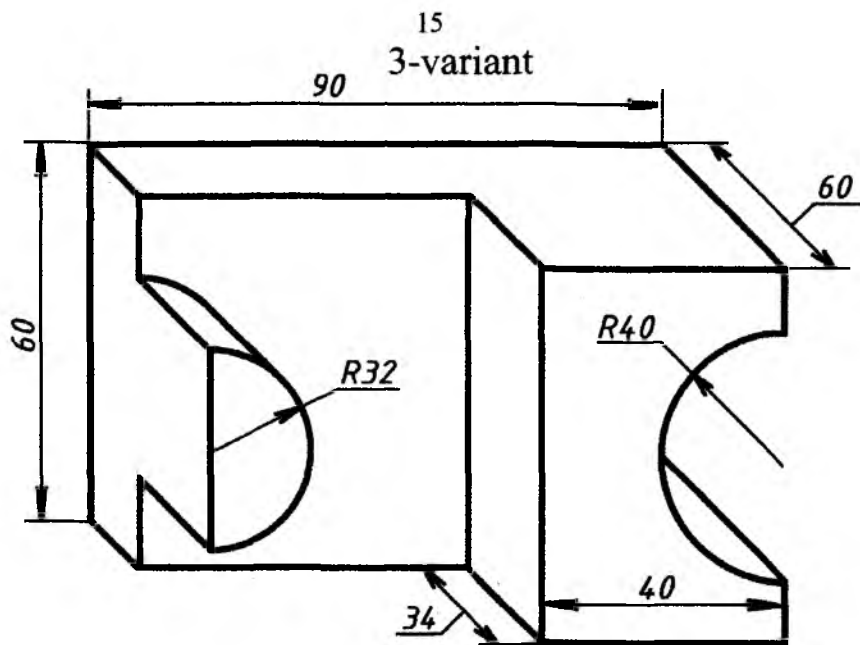
$$a : \frac{b}{2} : c = 1 : \frac{1}{2} : 1$$



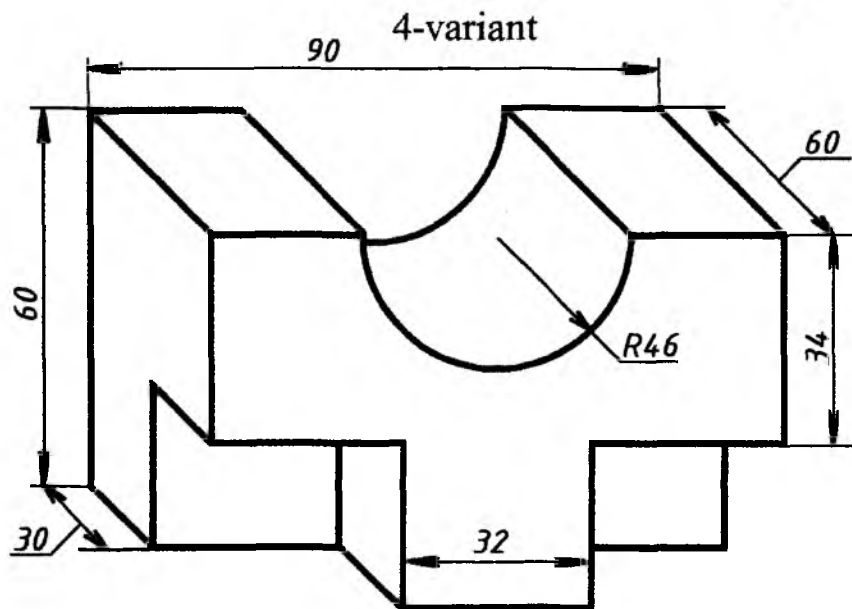
Izometriya a:b:c=1:1:1



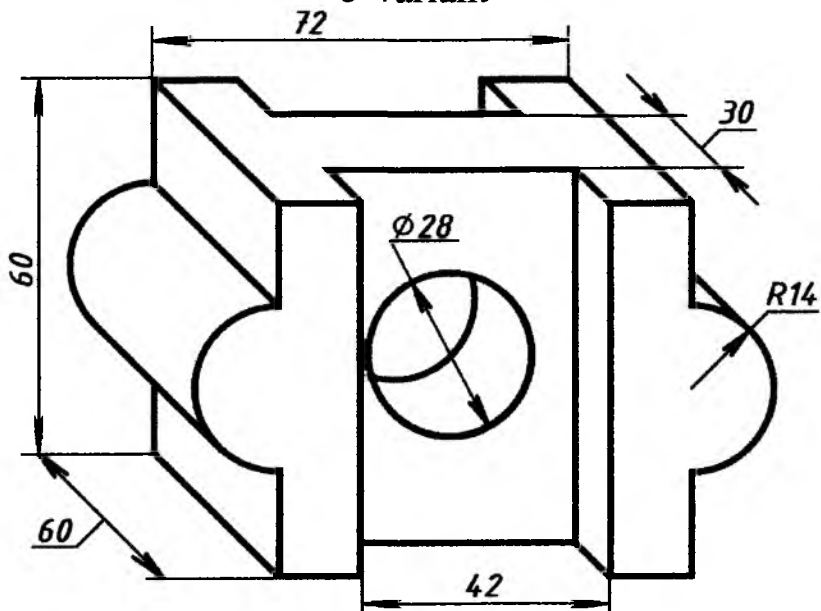
15
3-variant



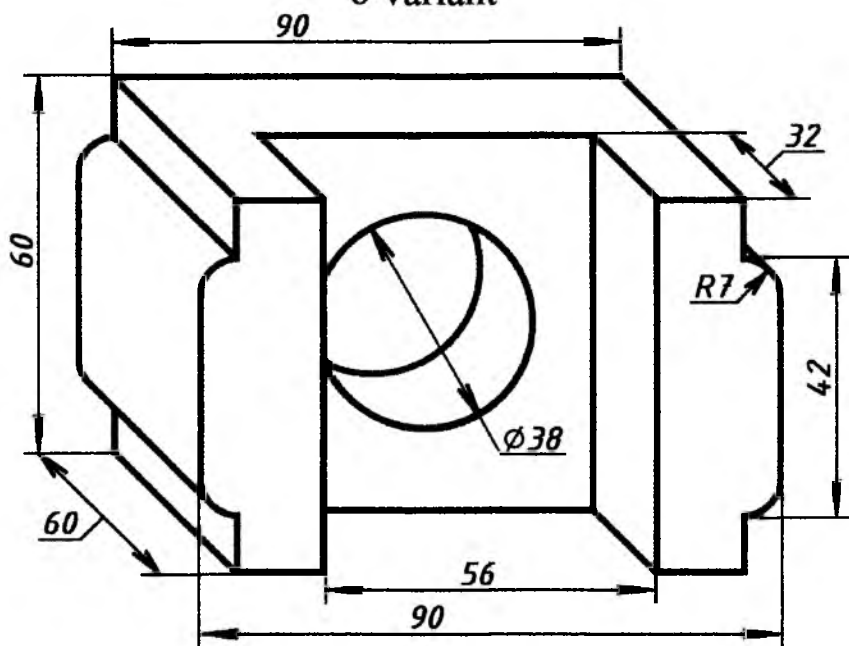
4-variant



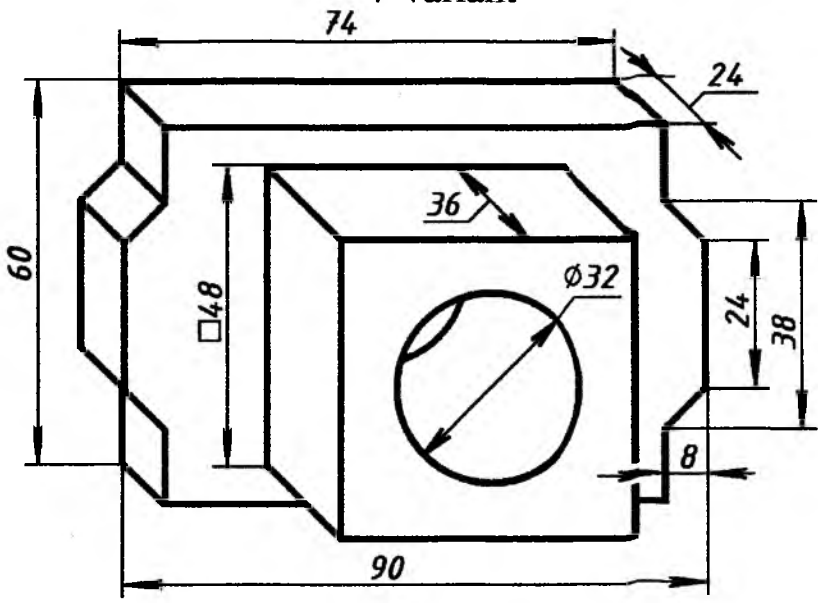
16
5-variant



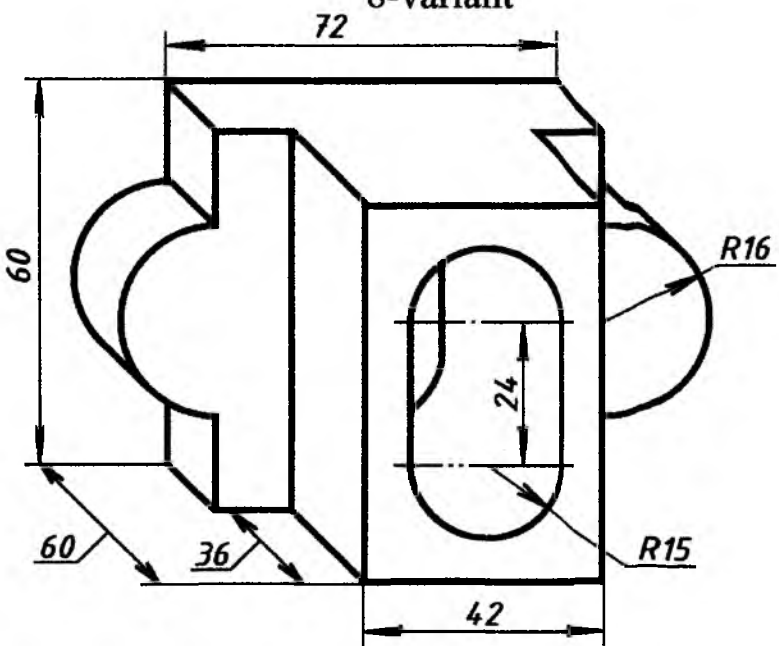
6-variant



17
7-variant

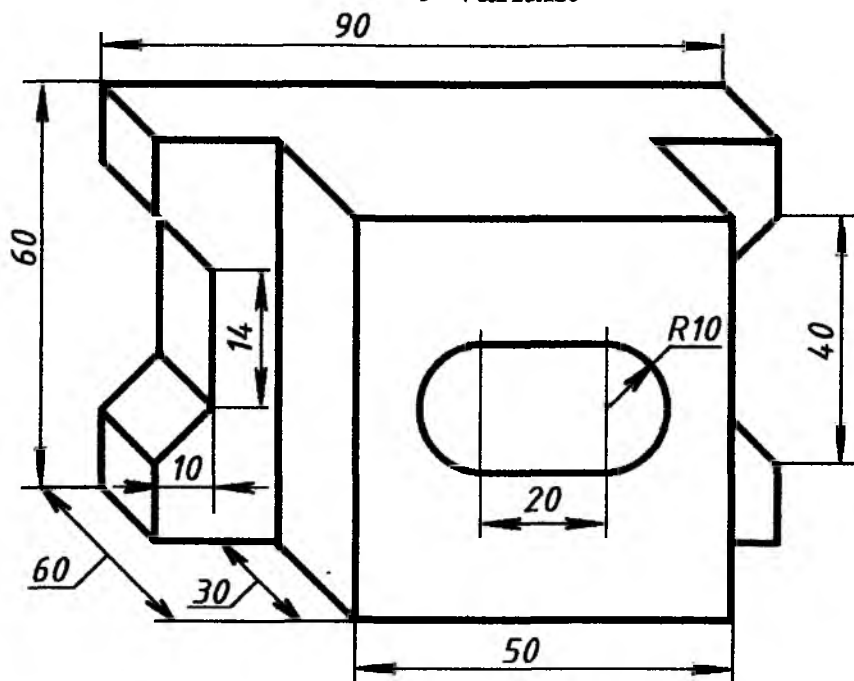


8-variant

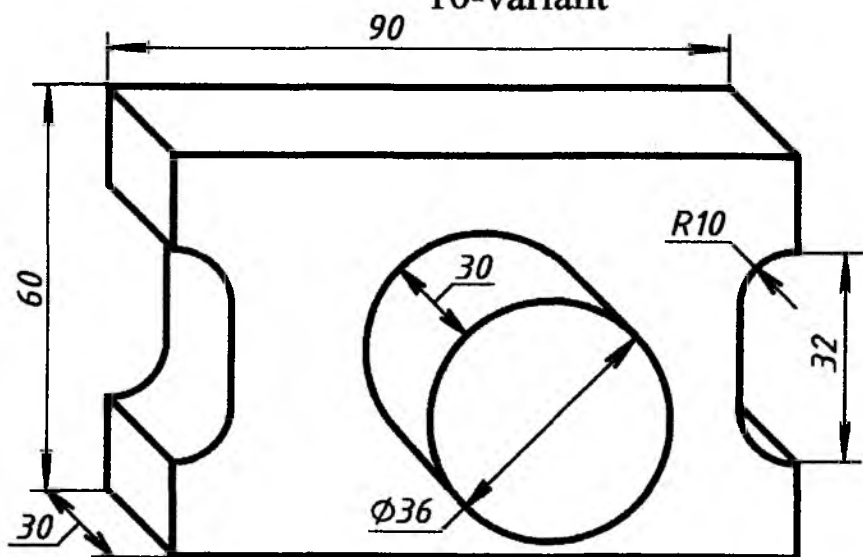


18

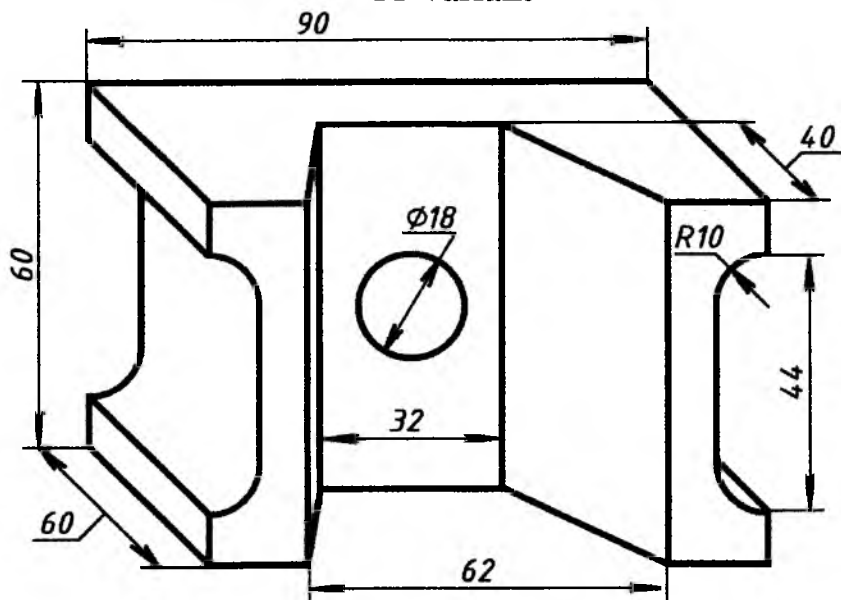
9-variant



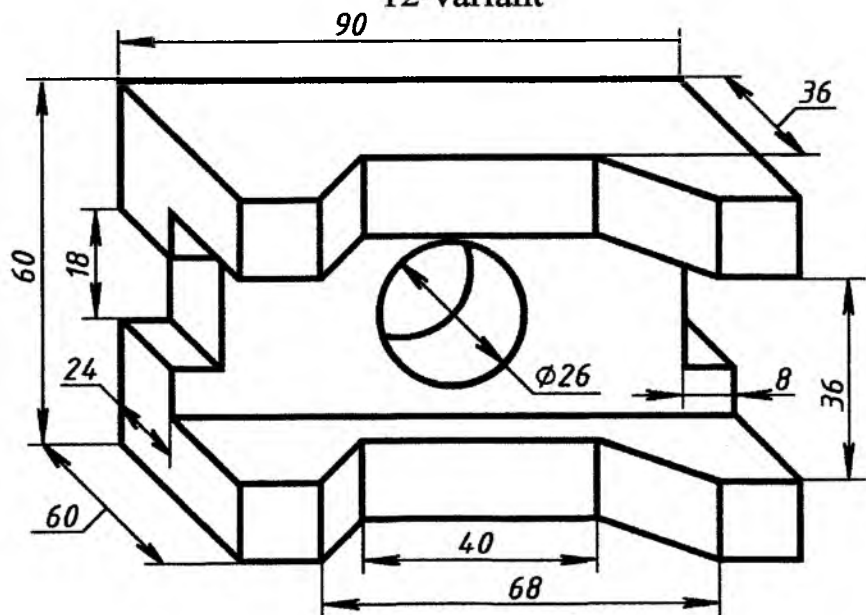
10-variant



19
11-variant

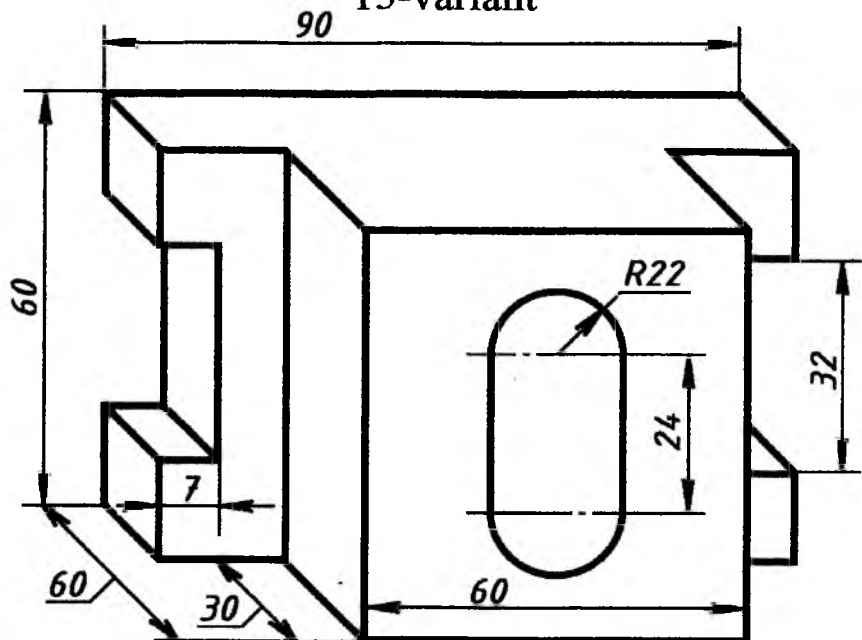


12-variant

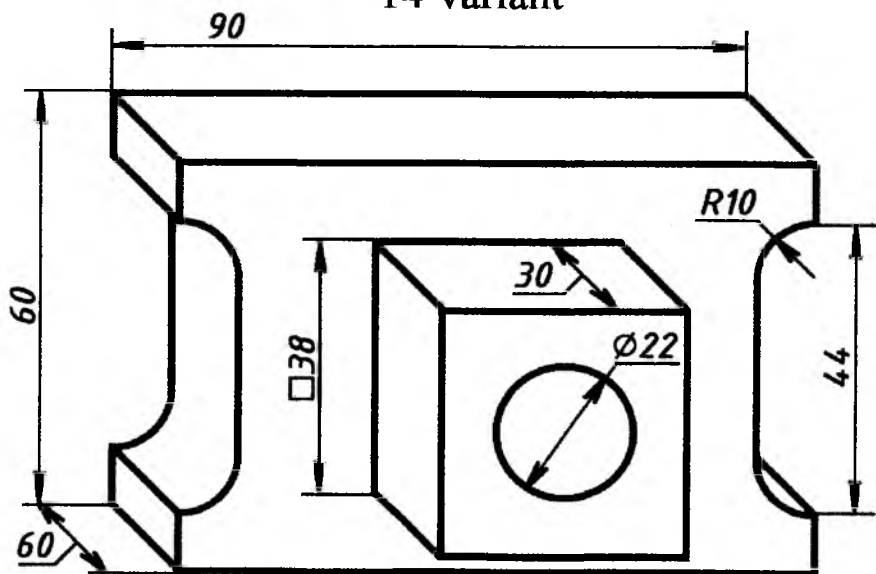


20

13-variant

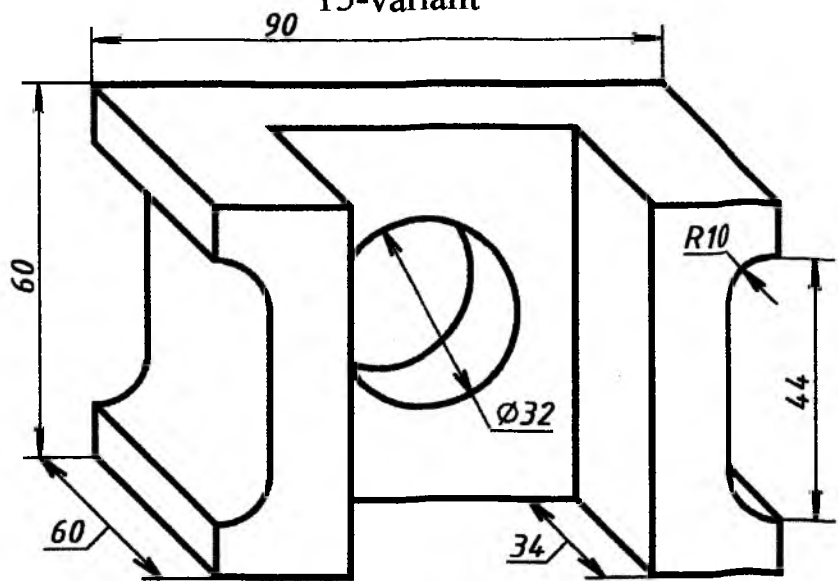


14-variant

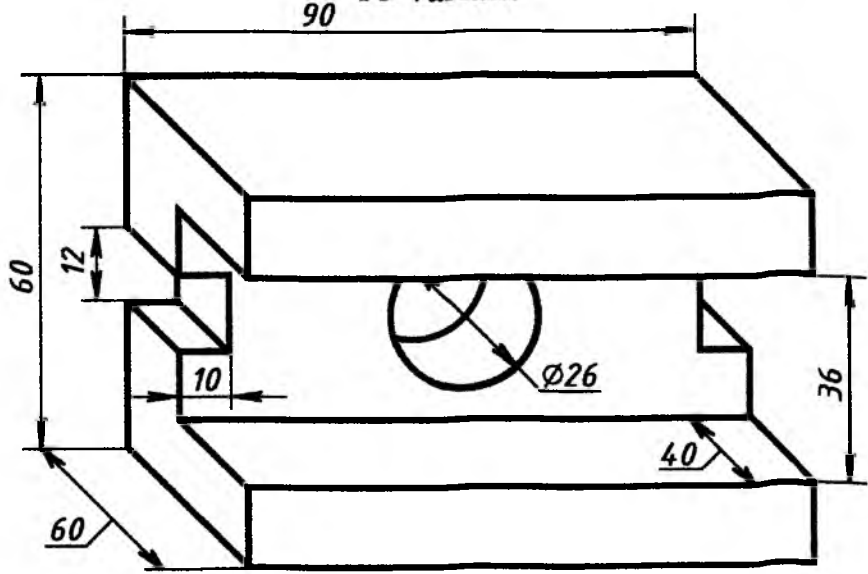


21

15-variant

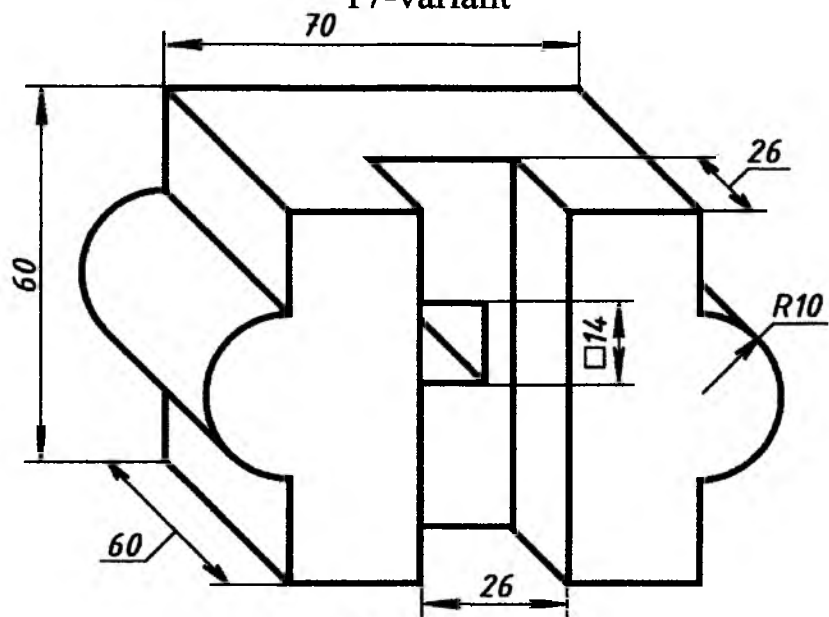


16-variant

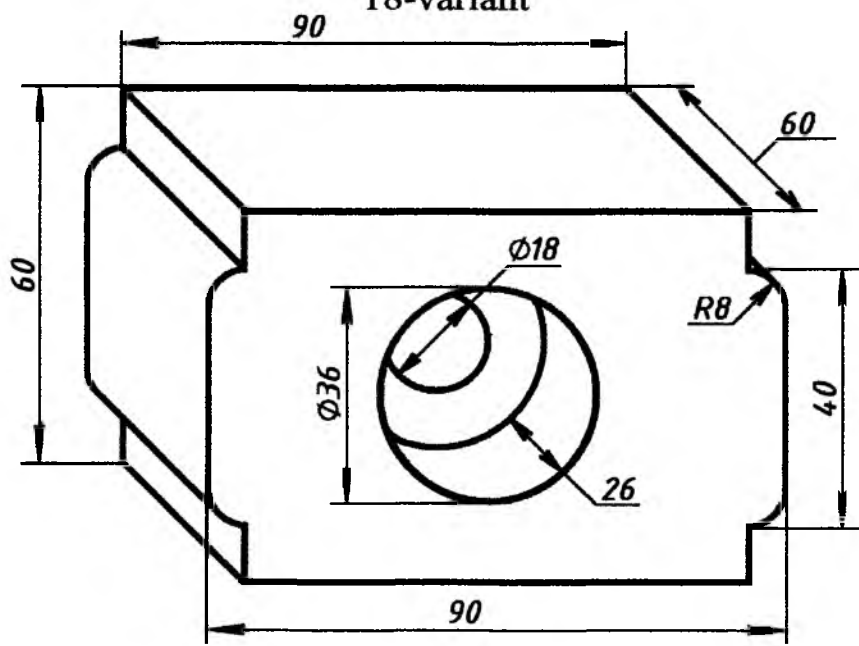


22

17-variant

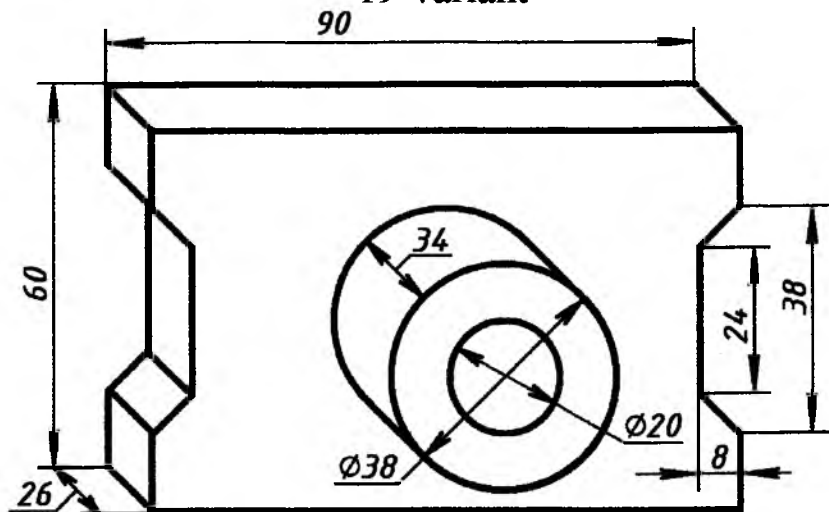


18-variant

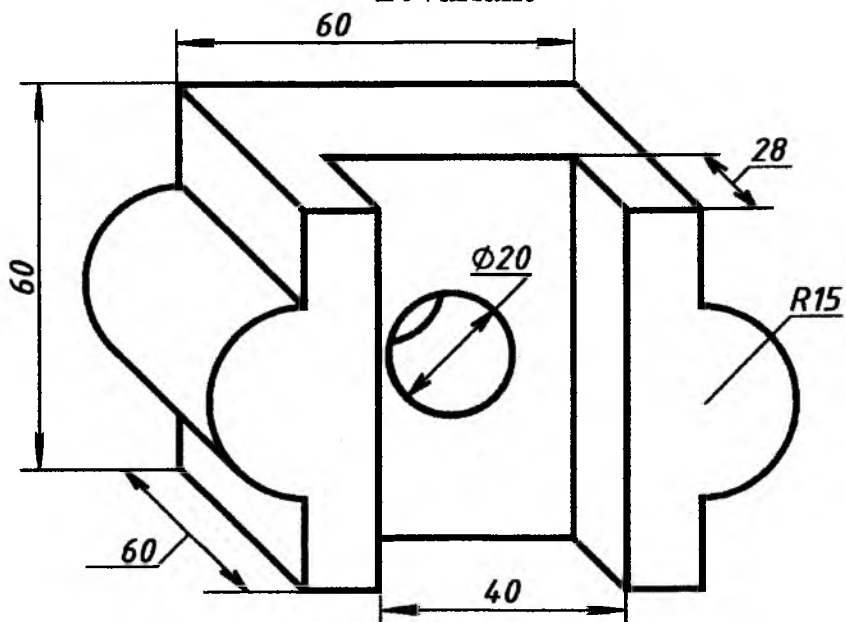


23

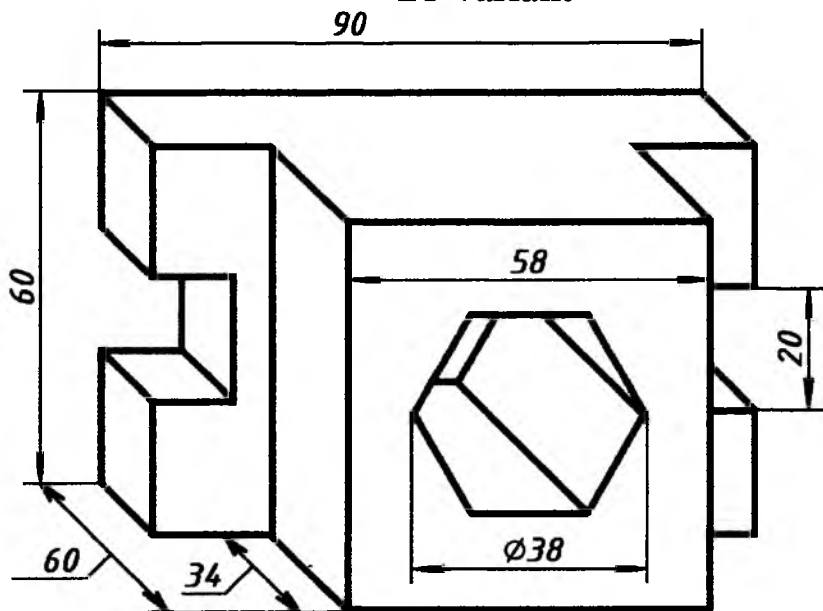
19-variant



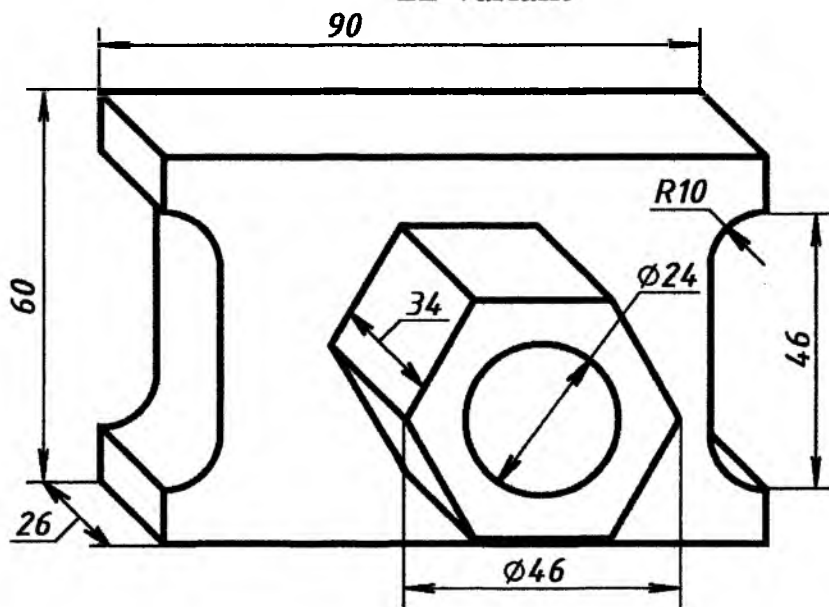
20variant



24
21-variant

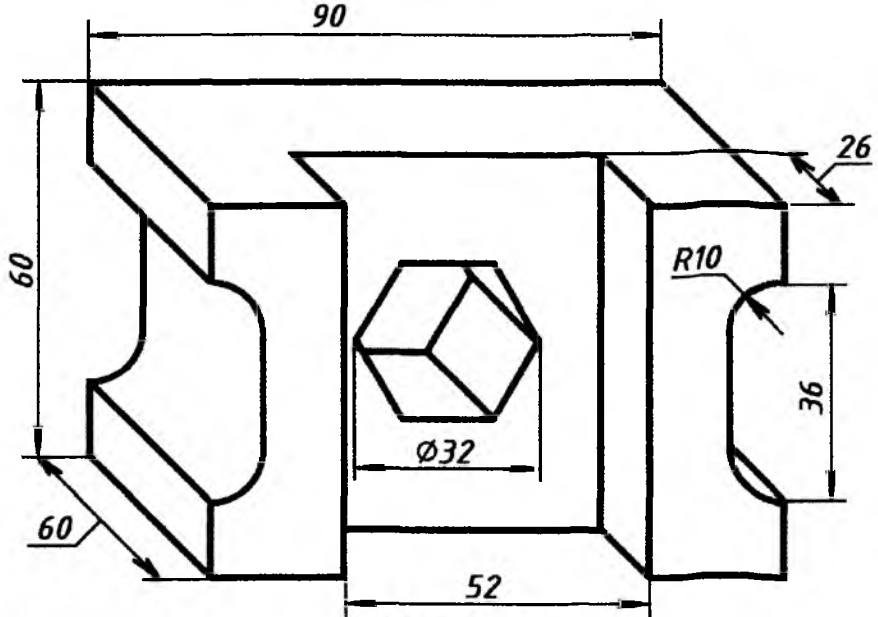


22-variant

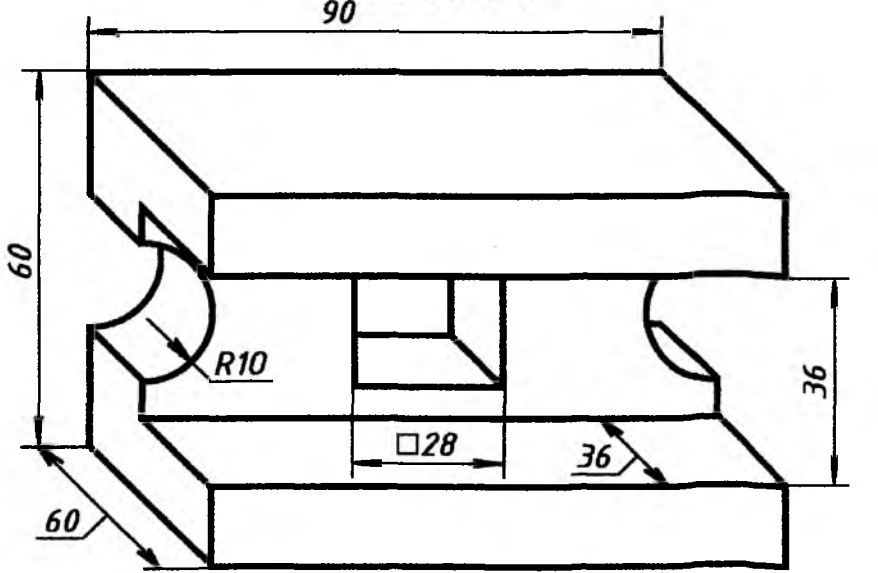


25

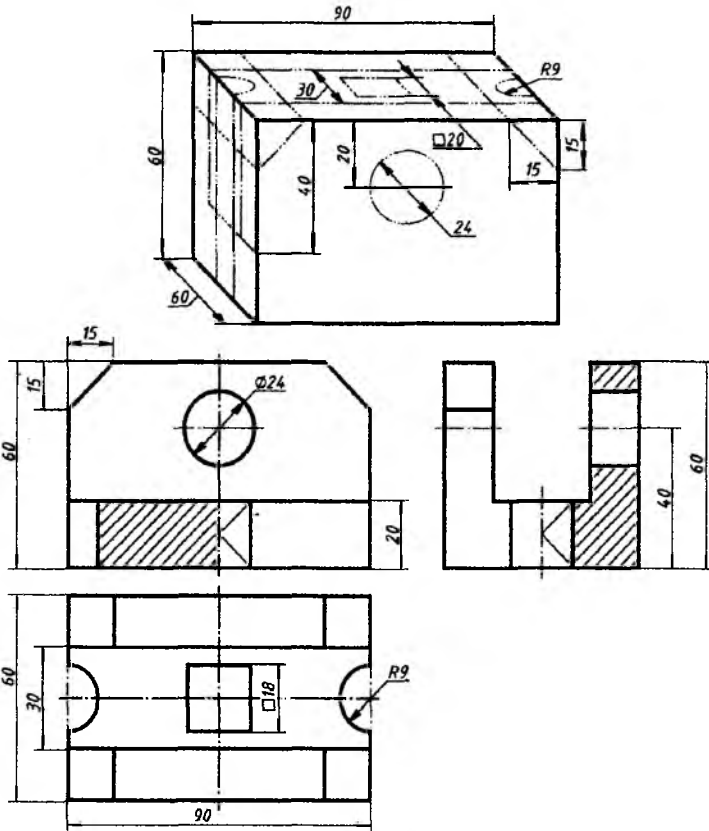
23-variant



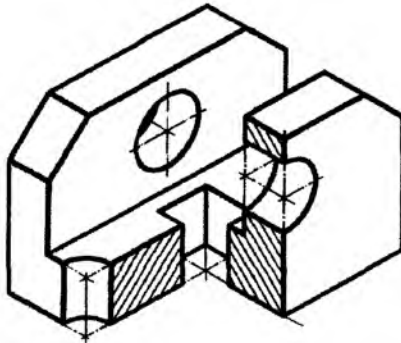
24-variant



**Xomaki tanani belgilangan chiziqlar bo'yicha o'yib detal hosil qilish
uchun grafik ish namunasi va variantlari**

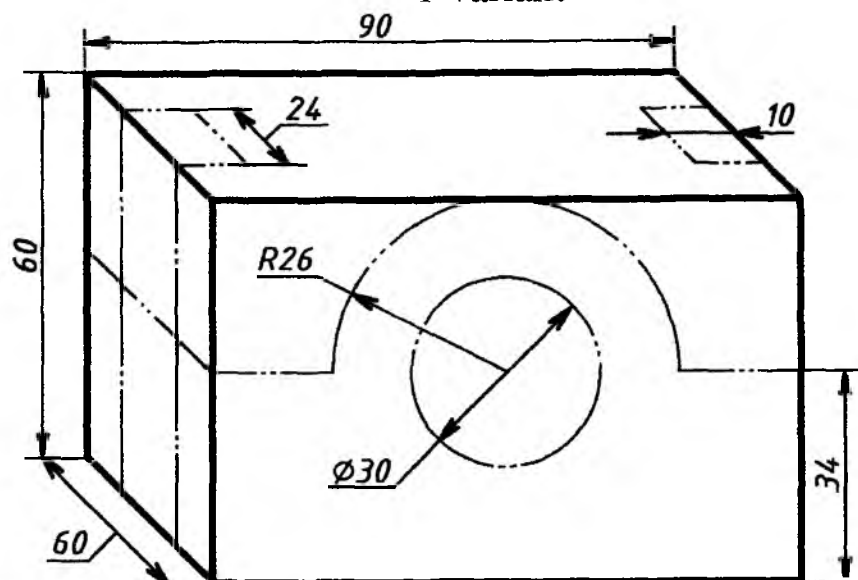


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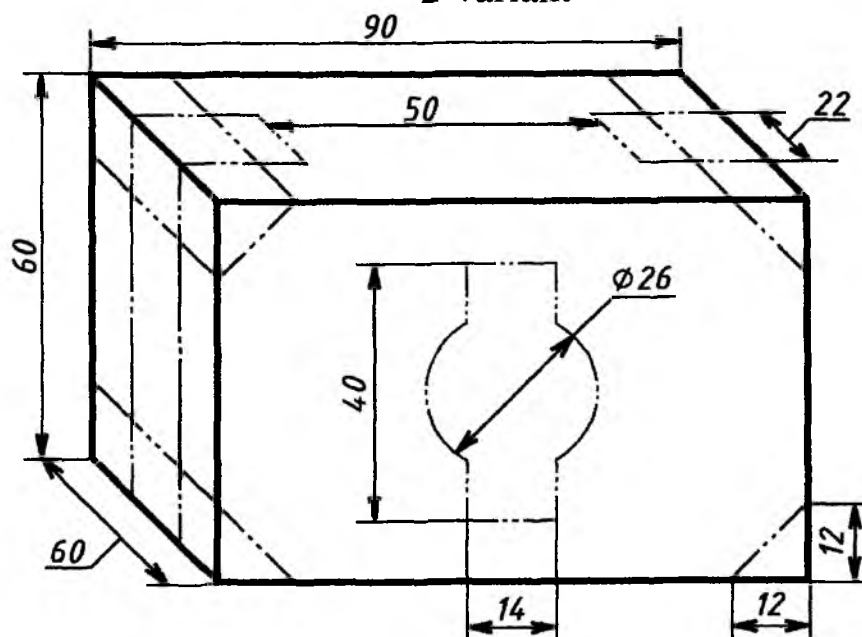


27

1-variant

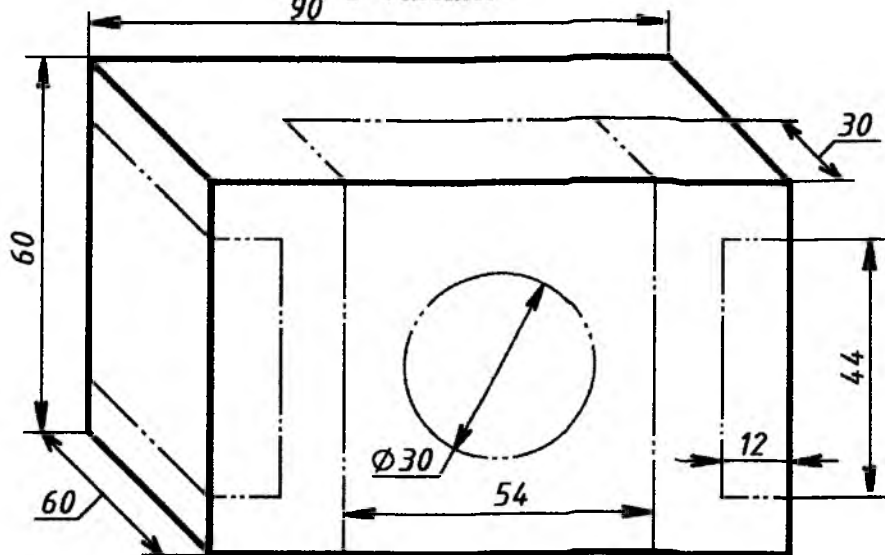


2-variant



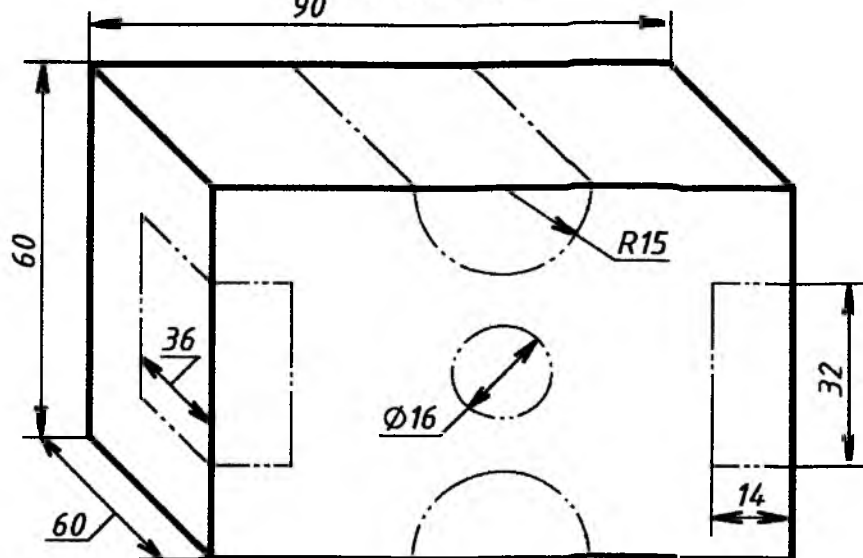
28

90 3-variant



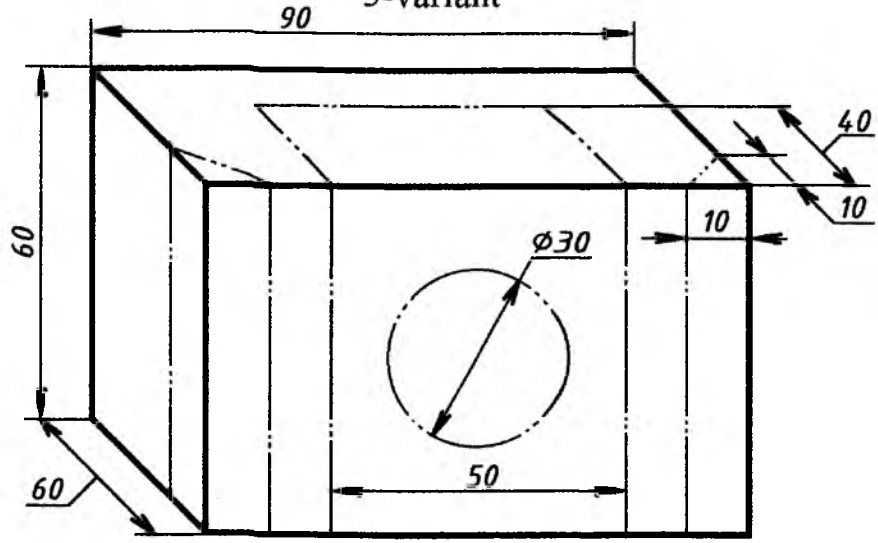
4-variant

90

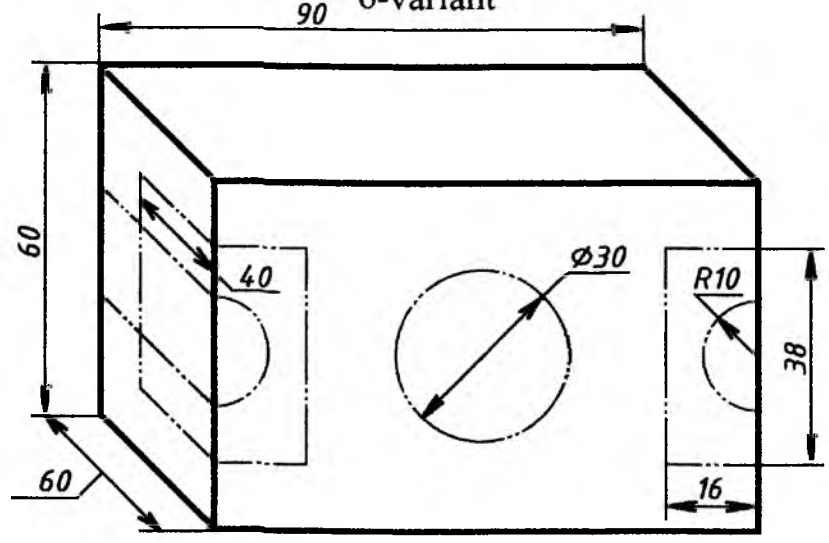


29

5-variant



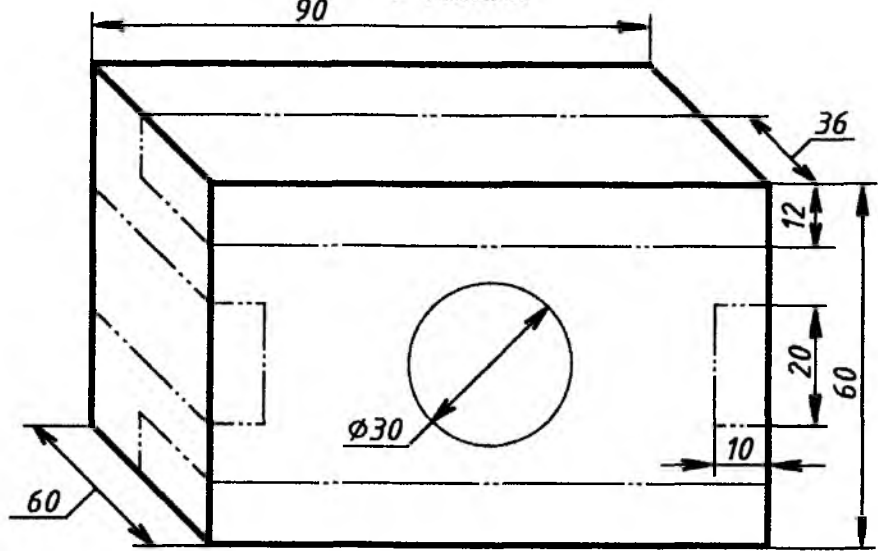
6-variant



30

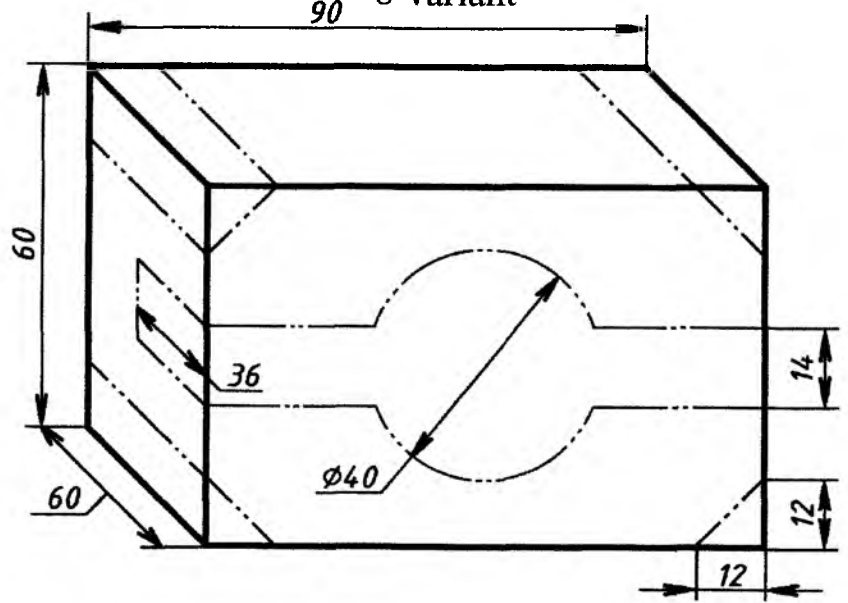
7-variant

90



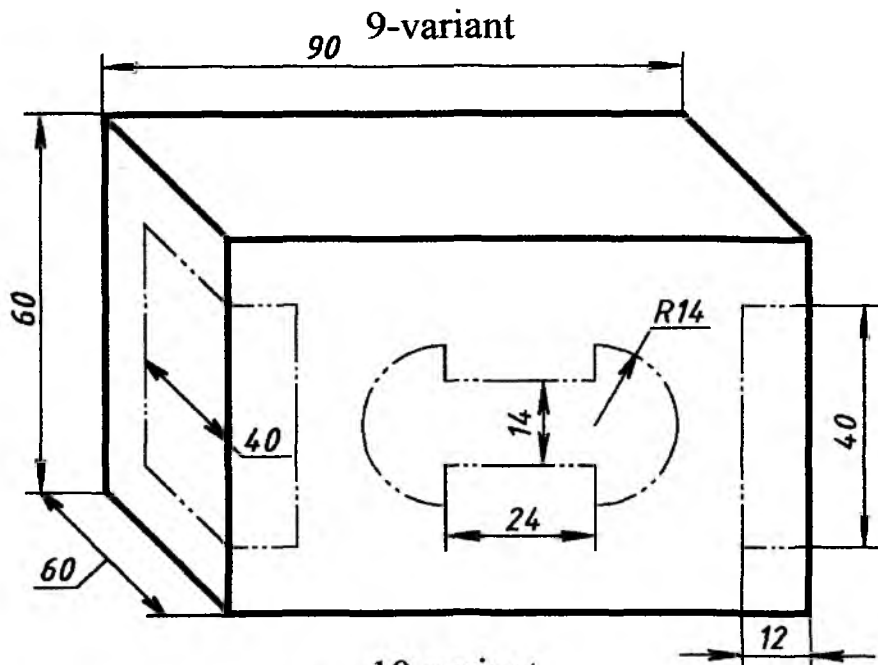
8-variant

90

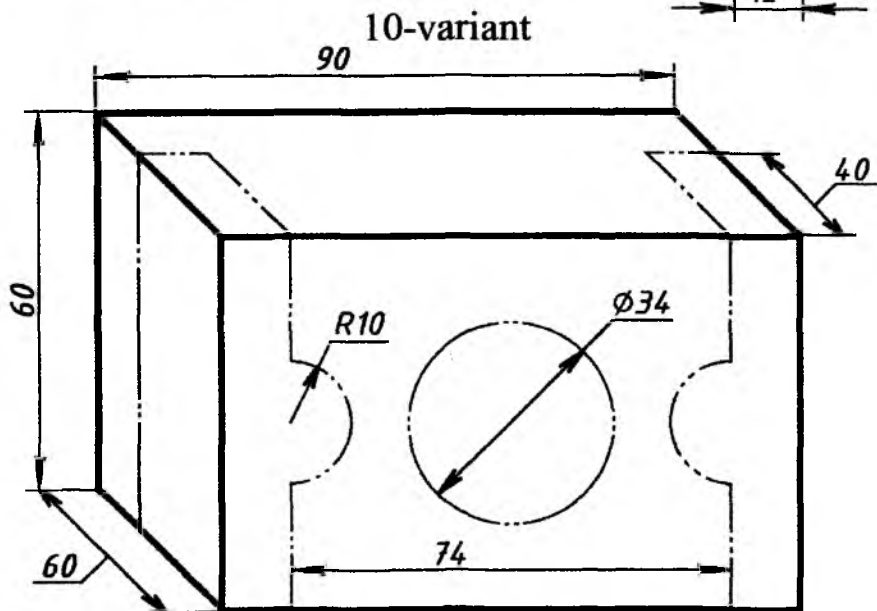


31

9-variant

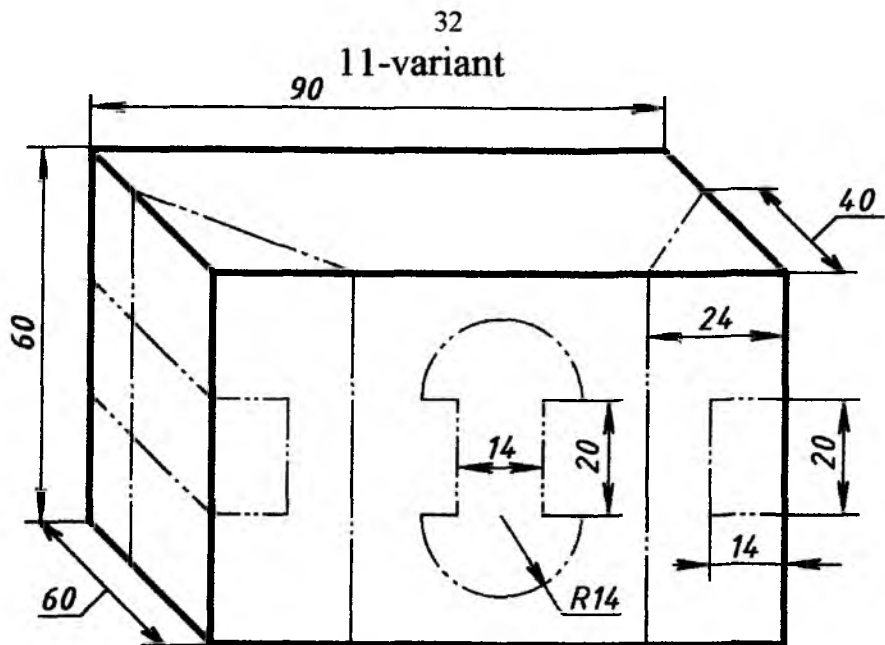


10-variant

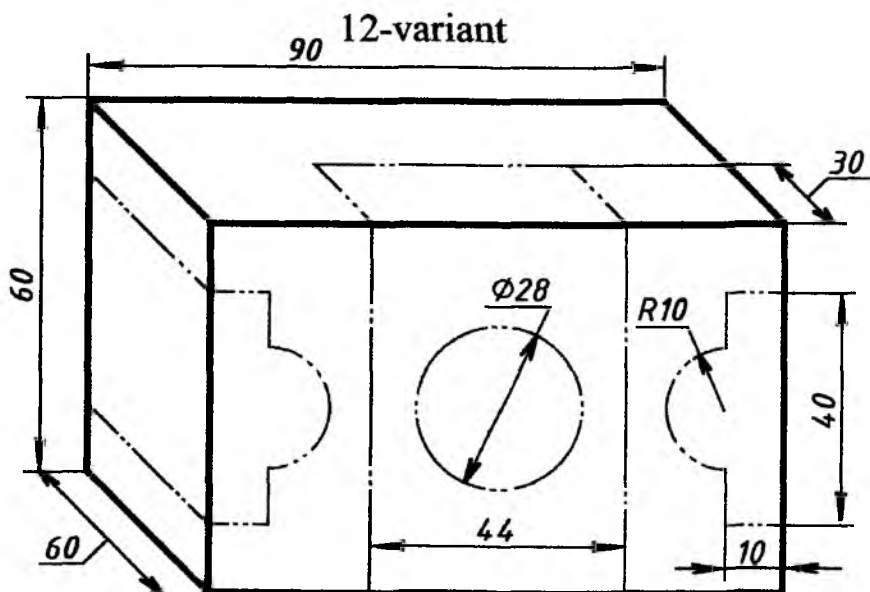


32

11-variant

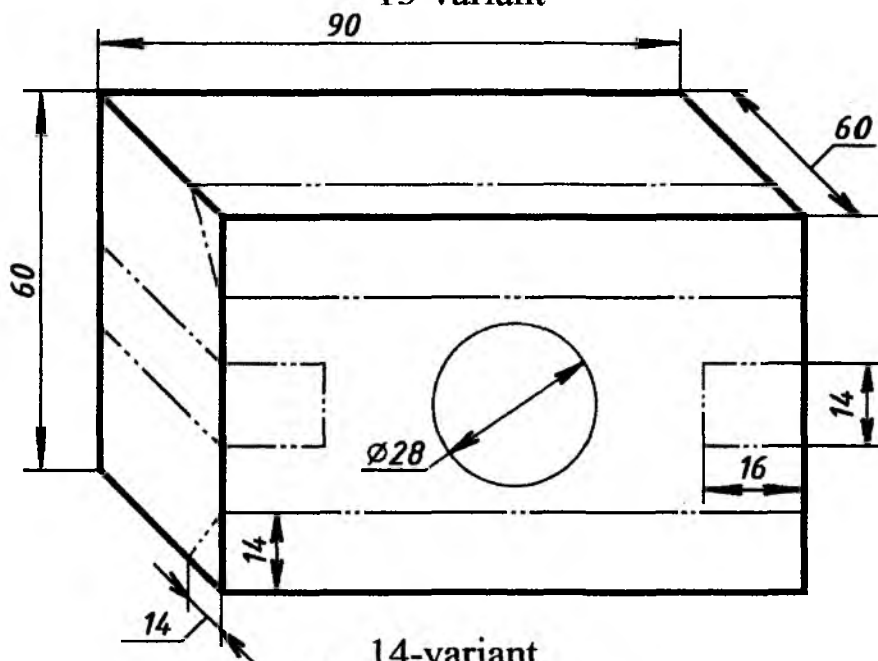


12-variant

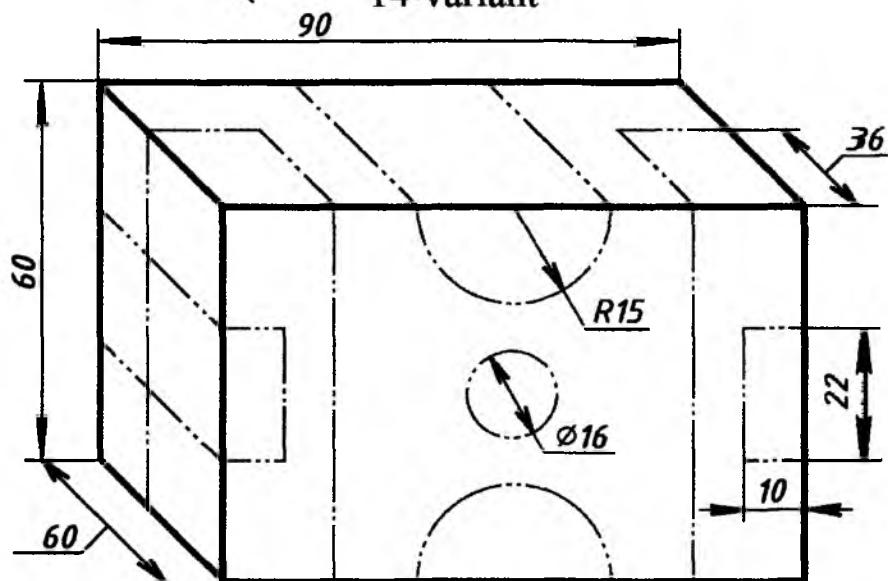


33

13-variant

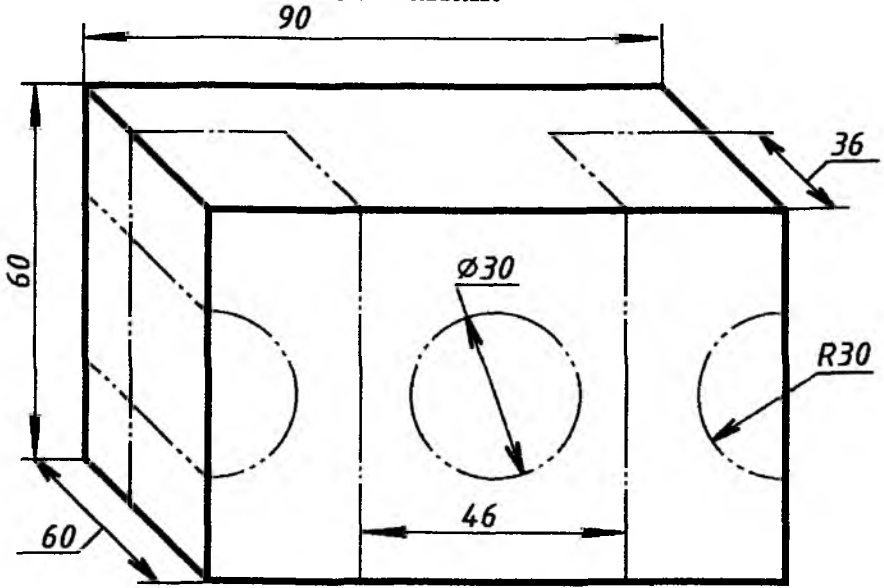


14-variant

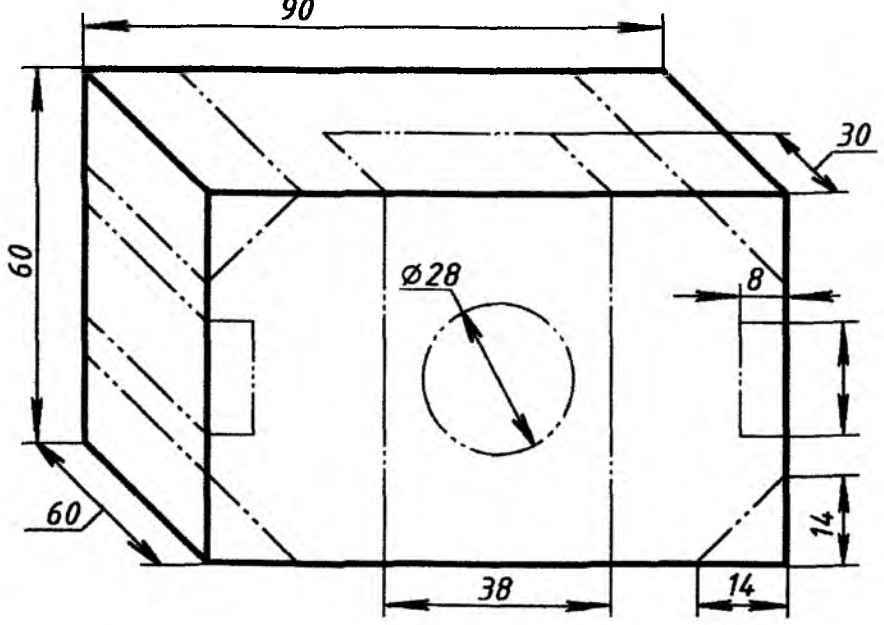


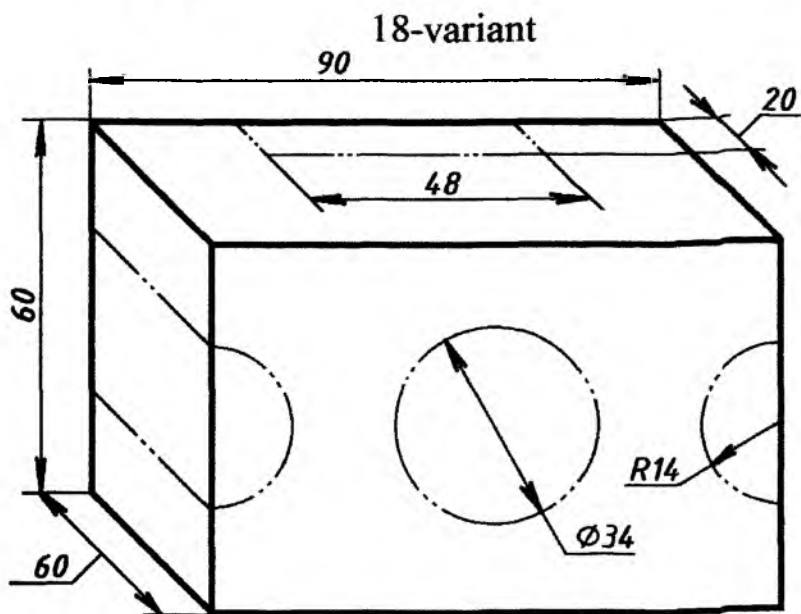
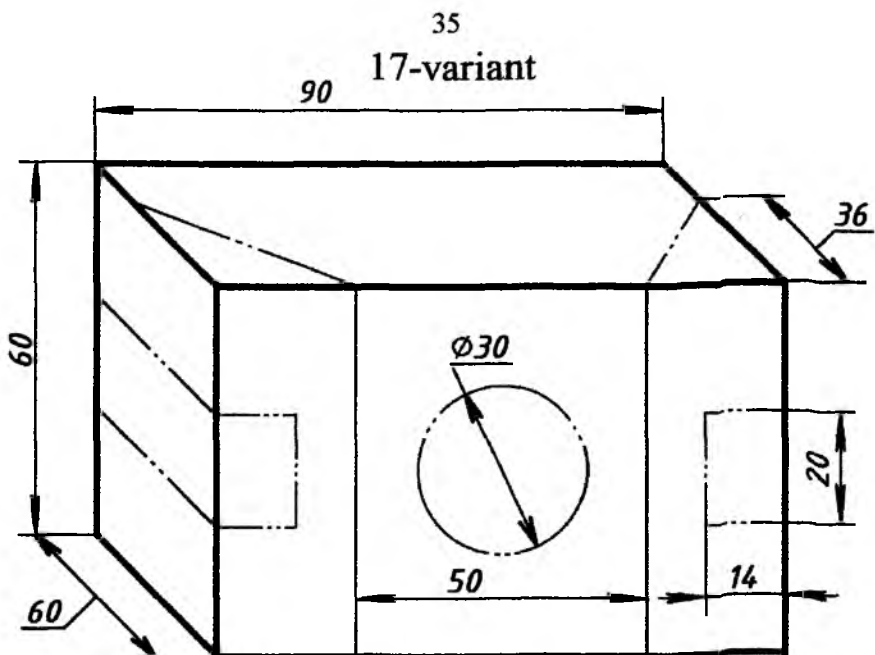
34

15-variant



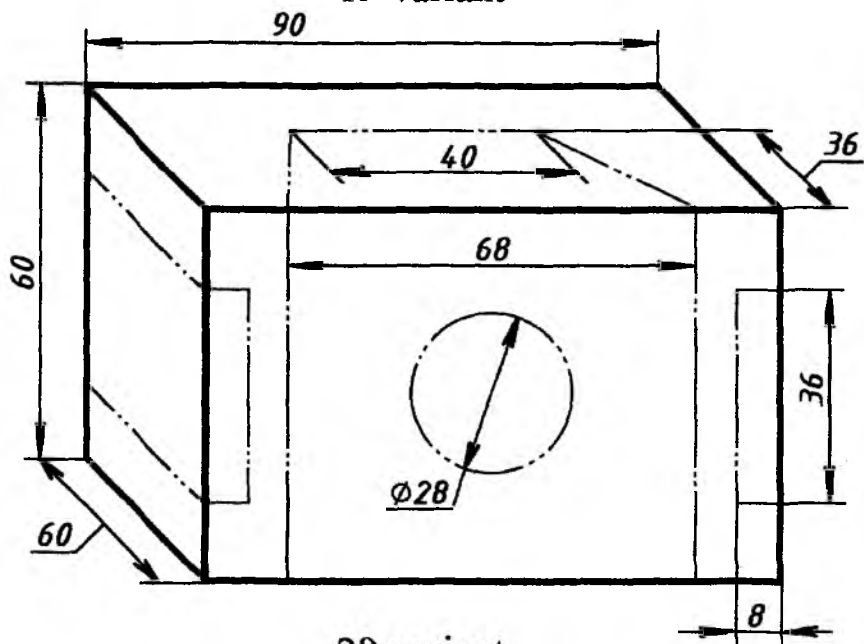
16-variant



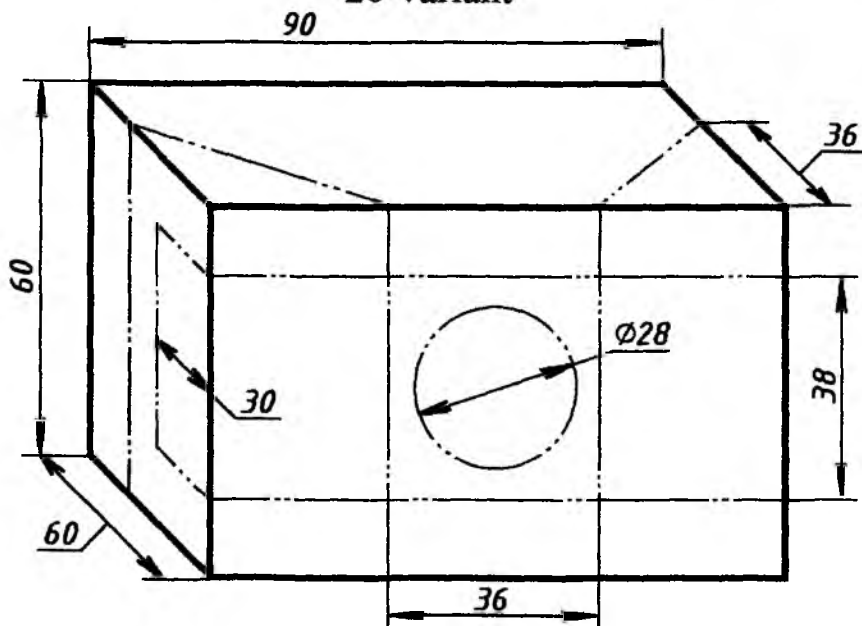


36

19-variant

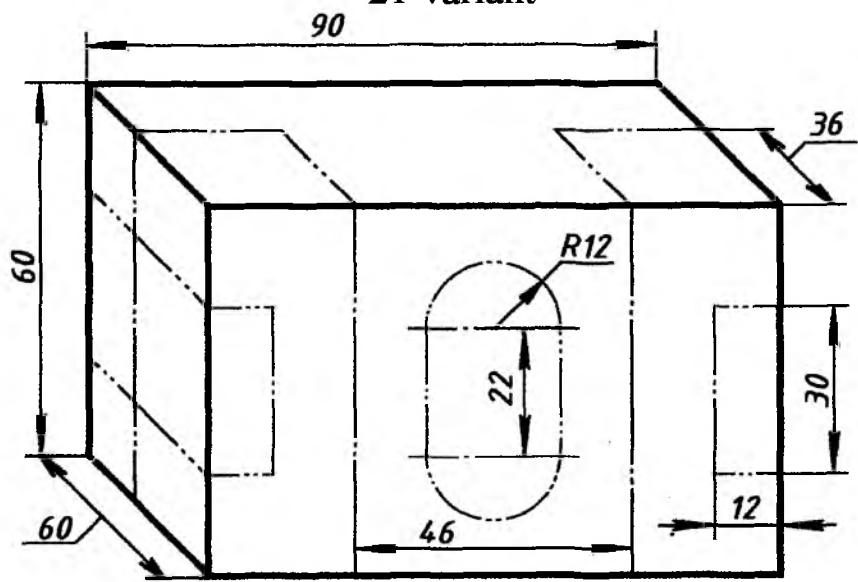


20-variant

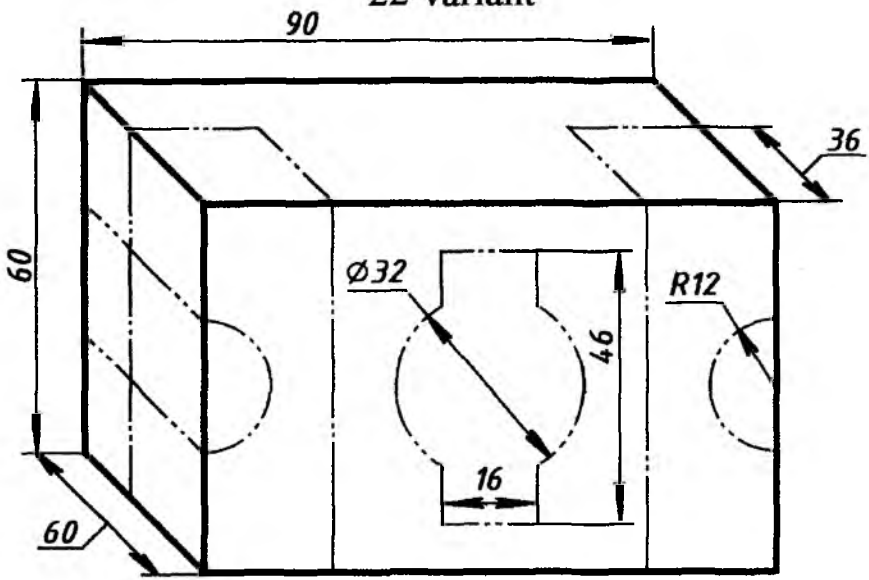


37

21-variant

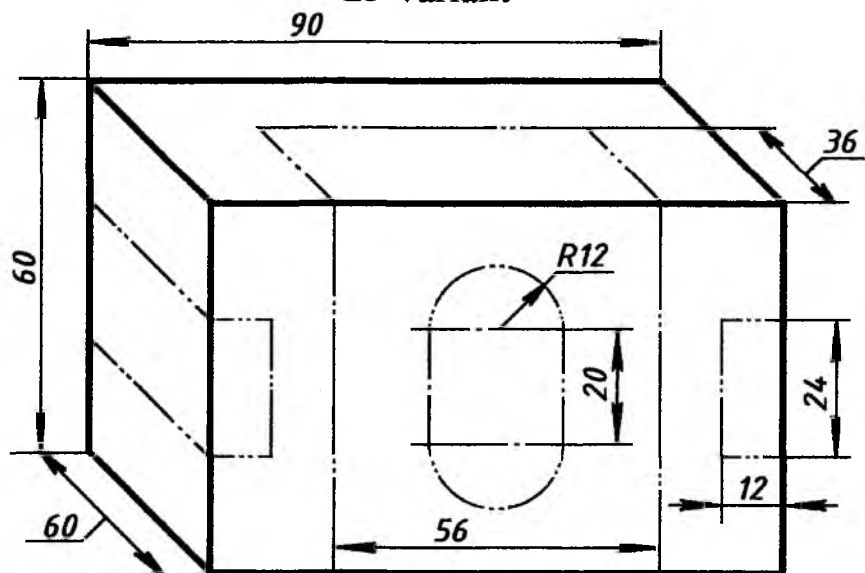


22-variant

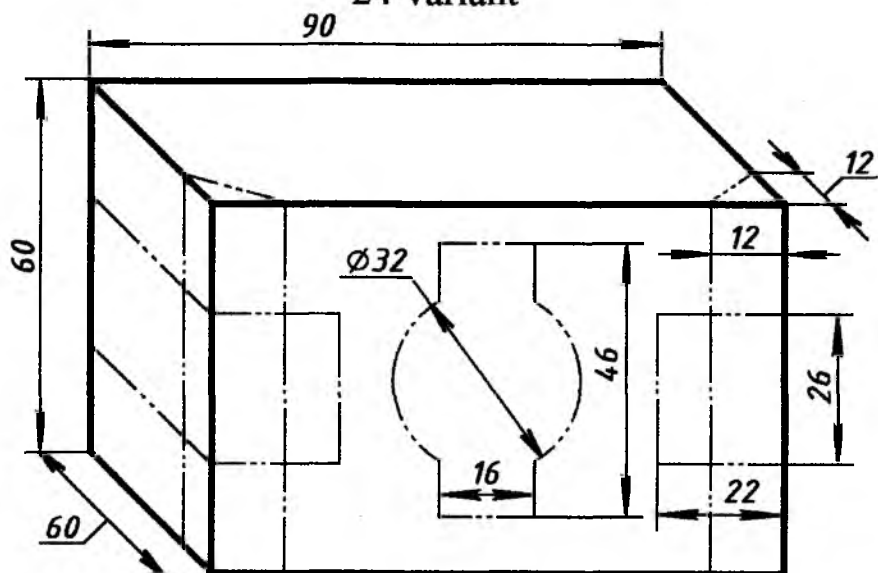


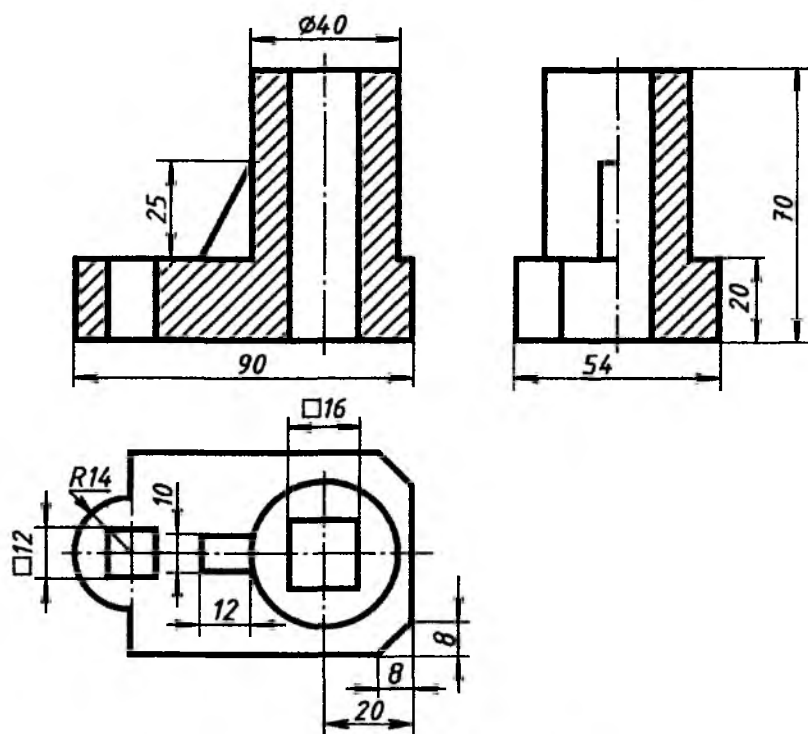
38

23-variant

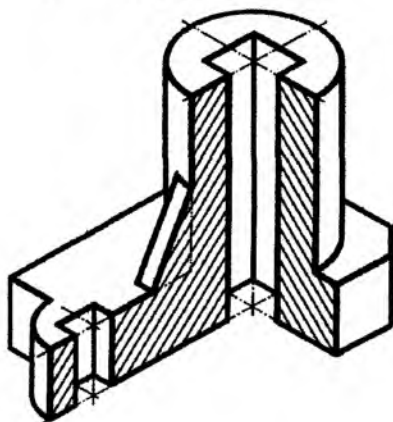


24-variant



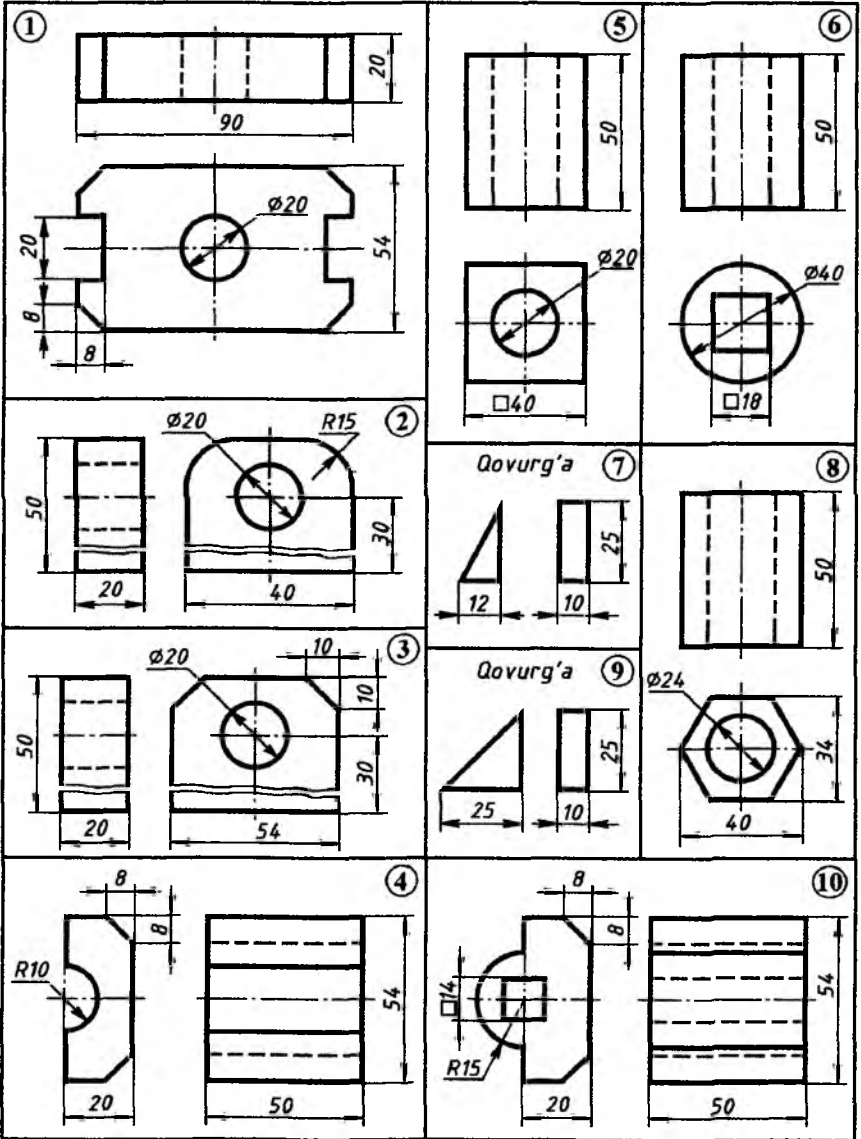


Izometriya a:b:c=1:1:1



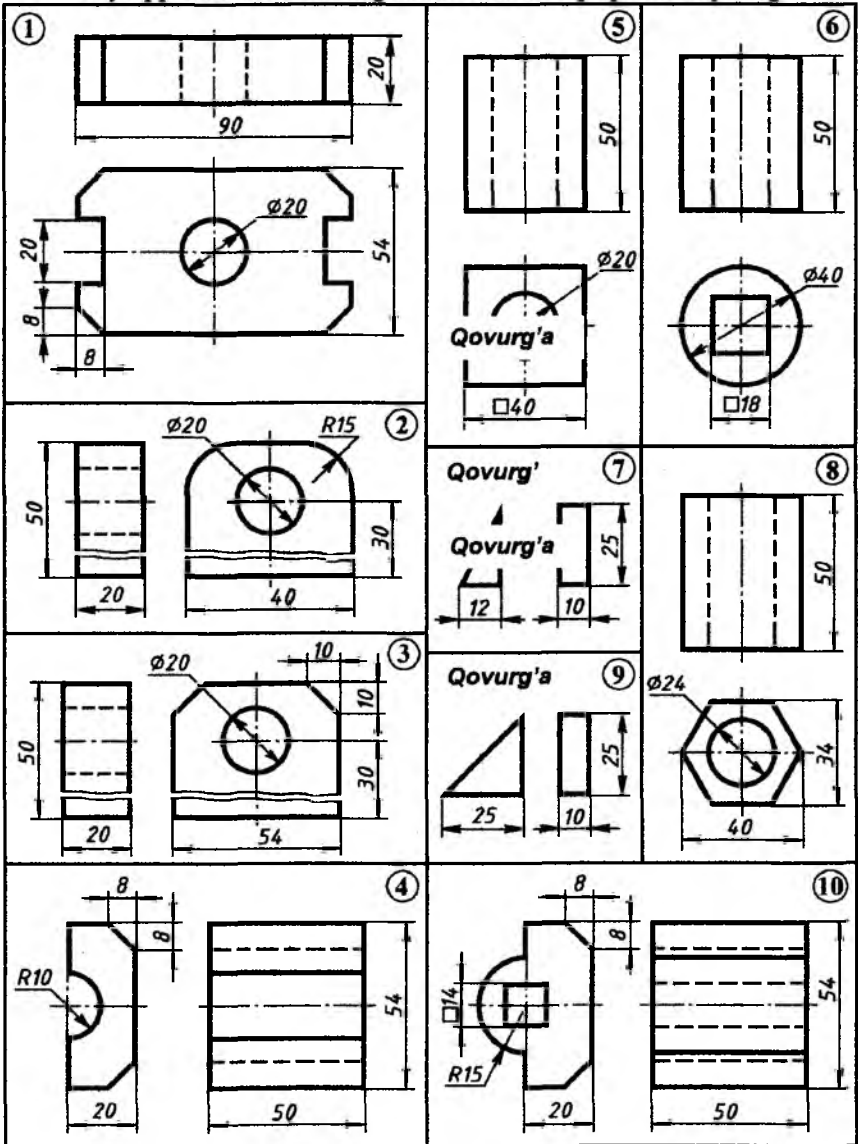
1-variant

Asos 1 ning ustiga 5 va 7 (2 ta) detallarni qo'ying (1 va 5 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



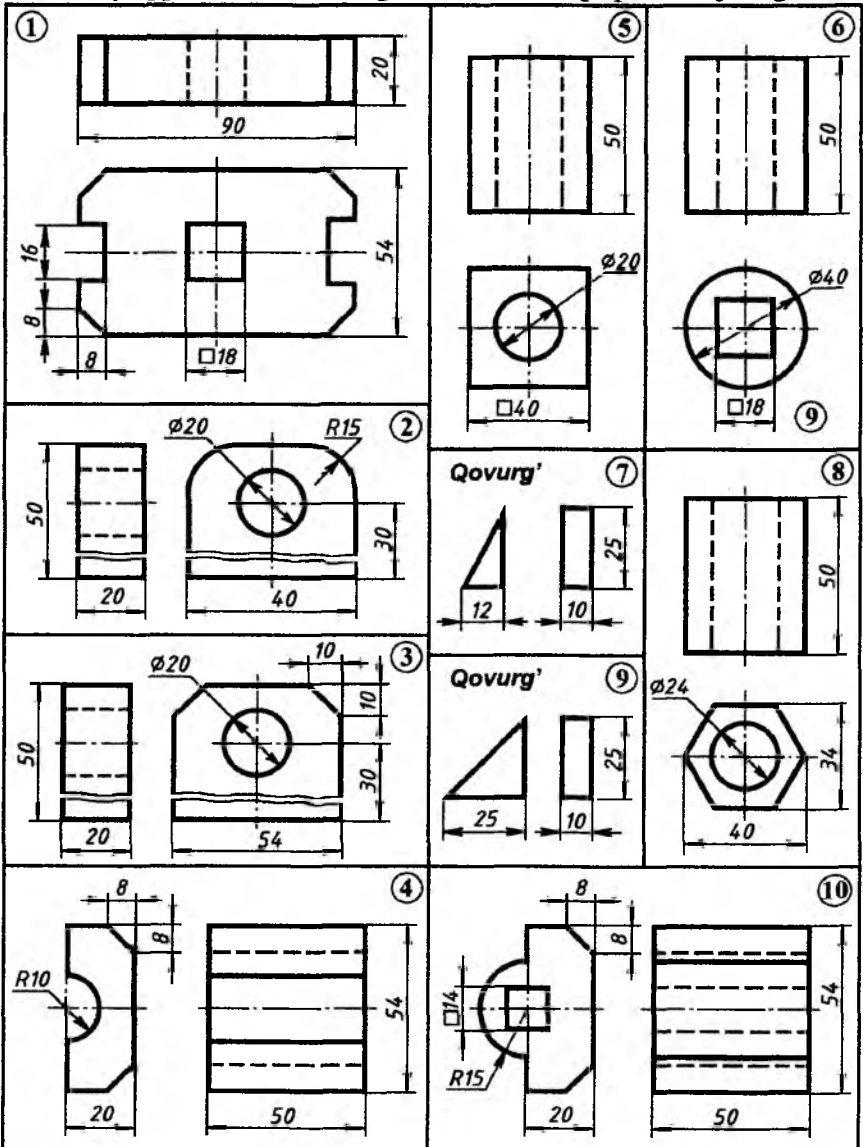
2-variant

Asos 1 ning ustiga 8 va 7 (2 ta) detallarni qo'ying (1 va 8 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



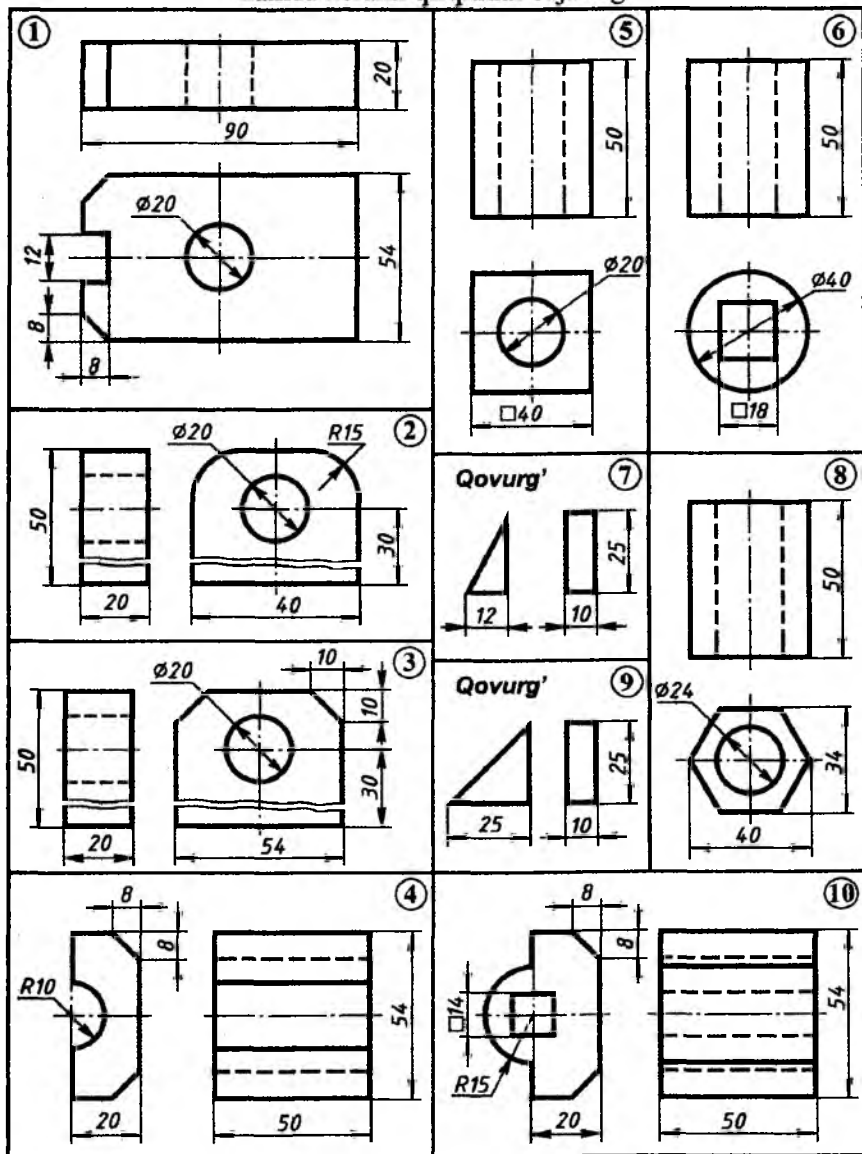
3-variant

Asos 1 ning ustiga 6 va 7 (2 ta) detallarni qo'ying (1 va 6 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



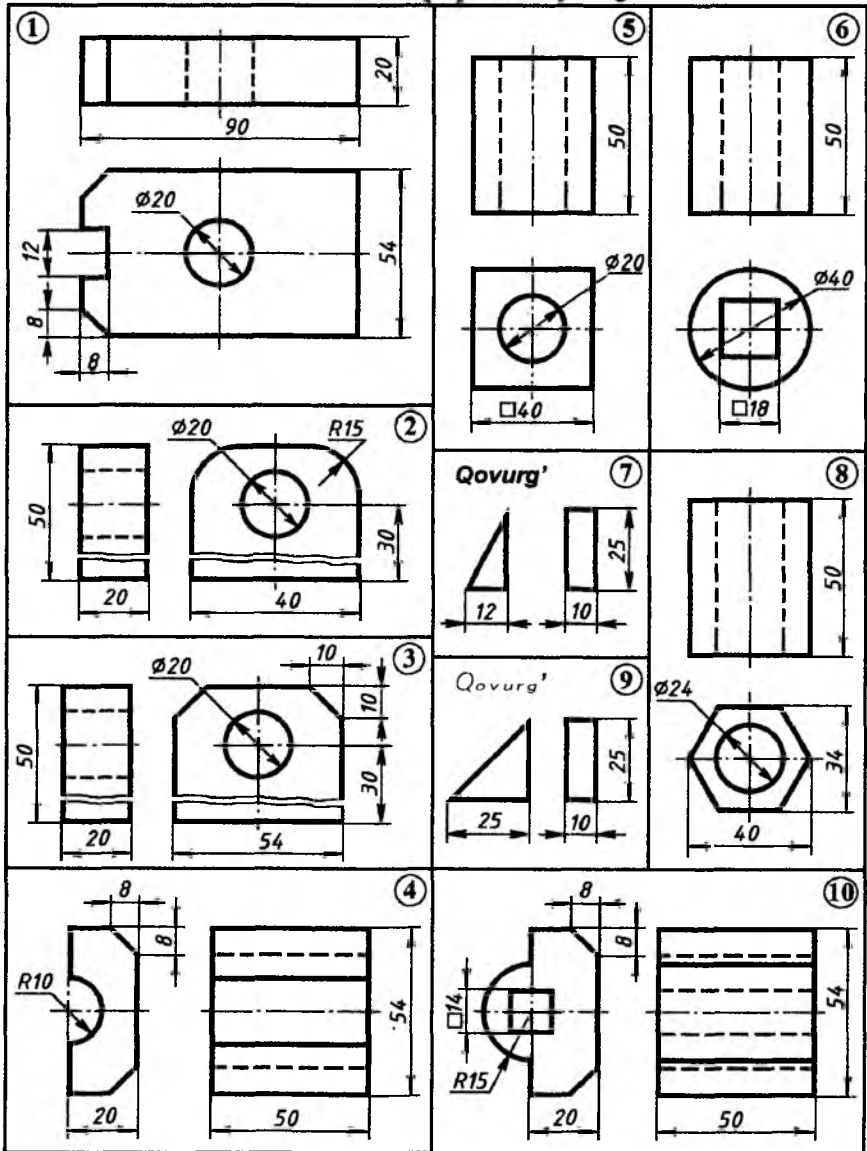
4-variant

Asos Ining o'ng chetiga 2 va 9 (2 ta) detallarni qo'ying.
 Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing
 hamda kerakli qirqimlar bajaring.



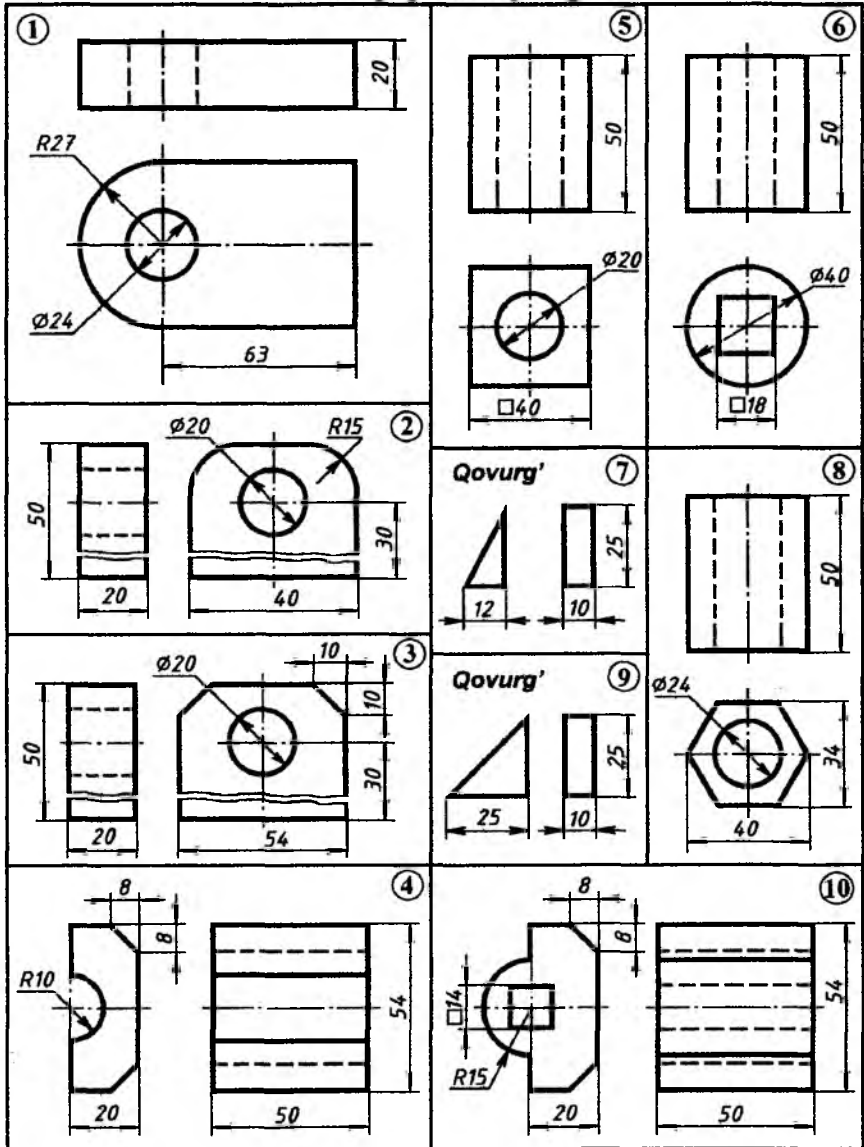
5-variant

Asos 1 ning o'ng chetiga 3 va 9 (2 ta) detallarni qo'ying.
 Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing
 hamda kerakli qirqimlar bajaring.



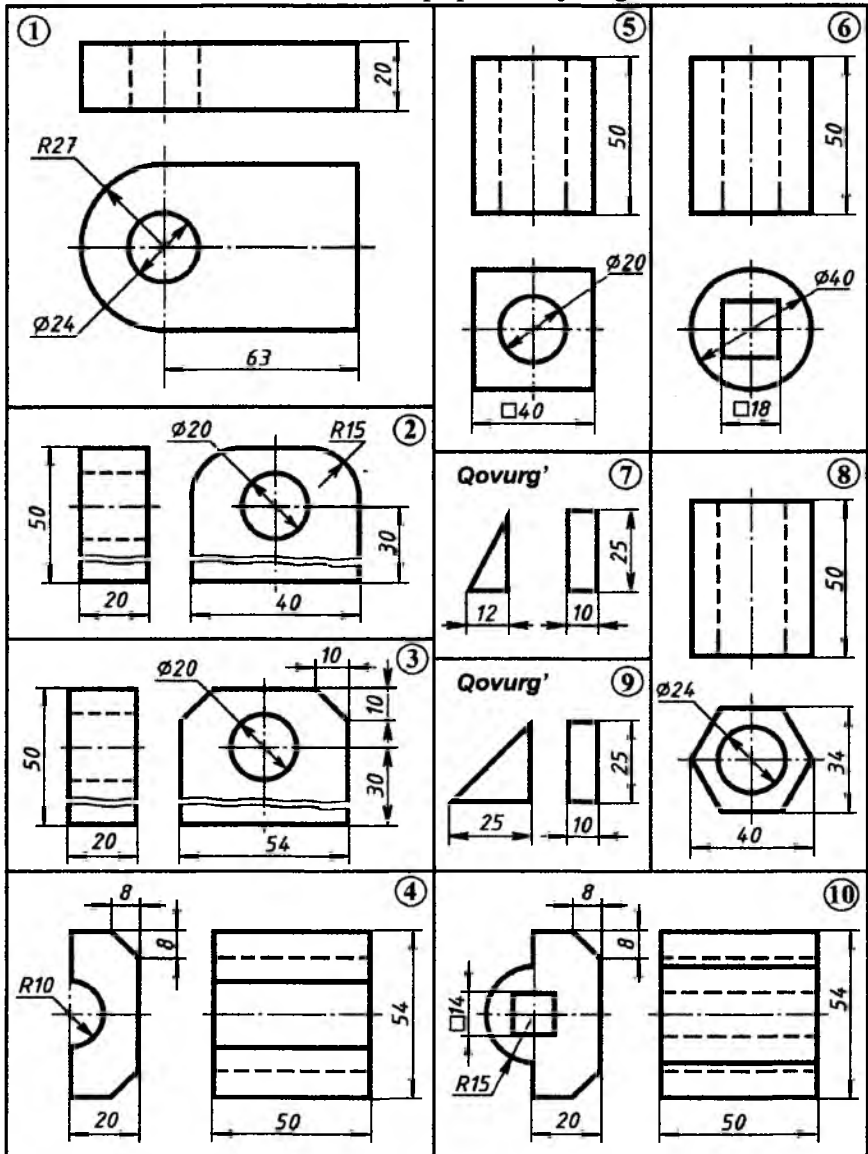
6-variant

Asos 1 ning o'ng chetiga 2 va 9 (2 ta) detallarni qo'ying. Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



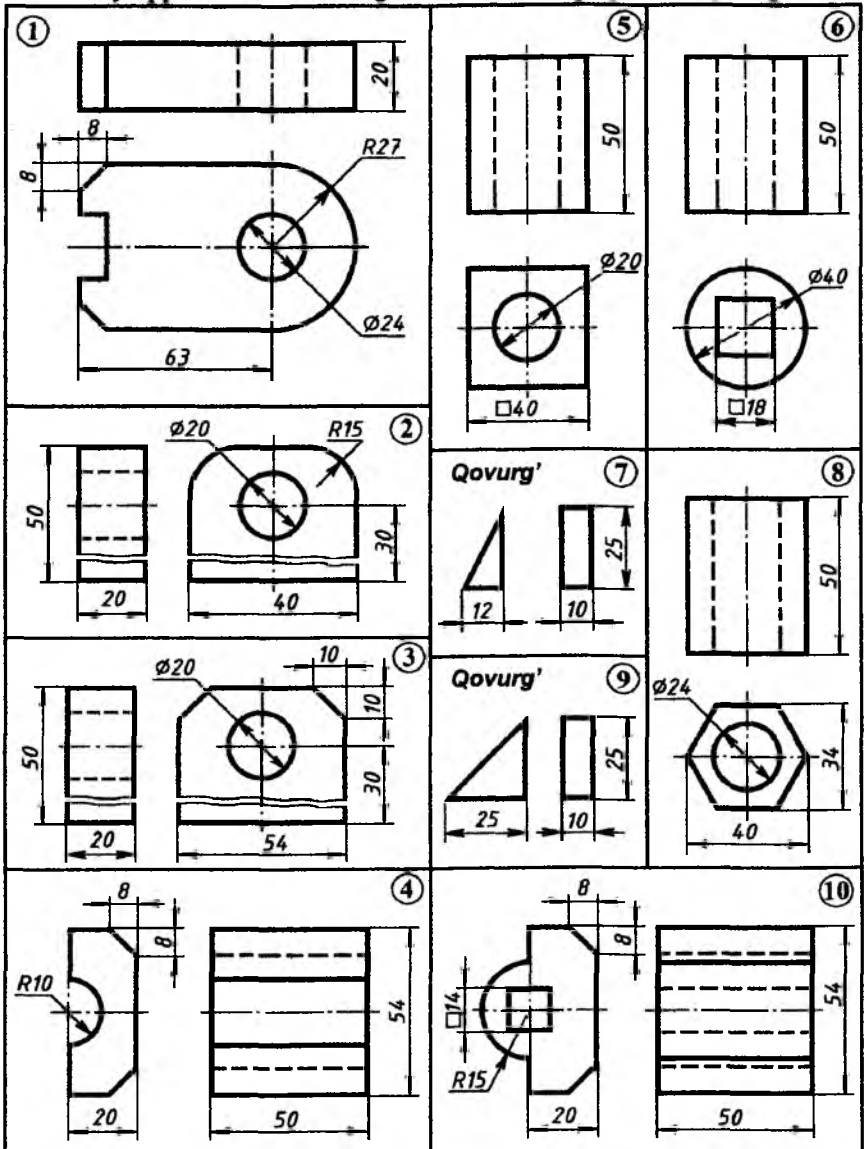
7-variant

Asos Ining o'ng chetiga 3 va 9 (2 ta) detallarni qo'ying.
 Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing
 hamda kerakli qirqimlar bajaring.



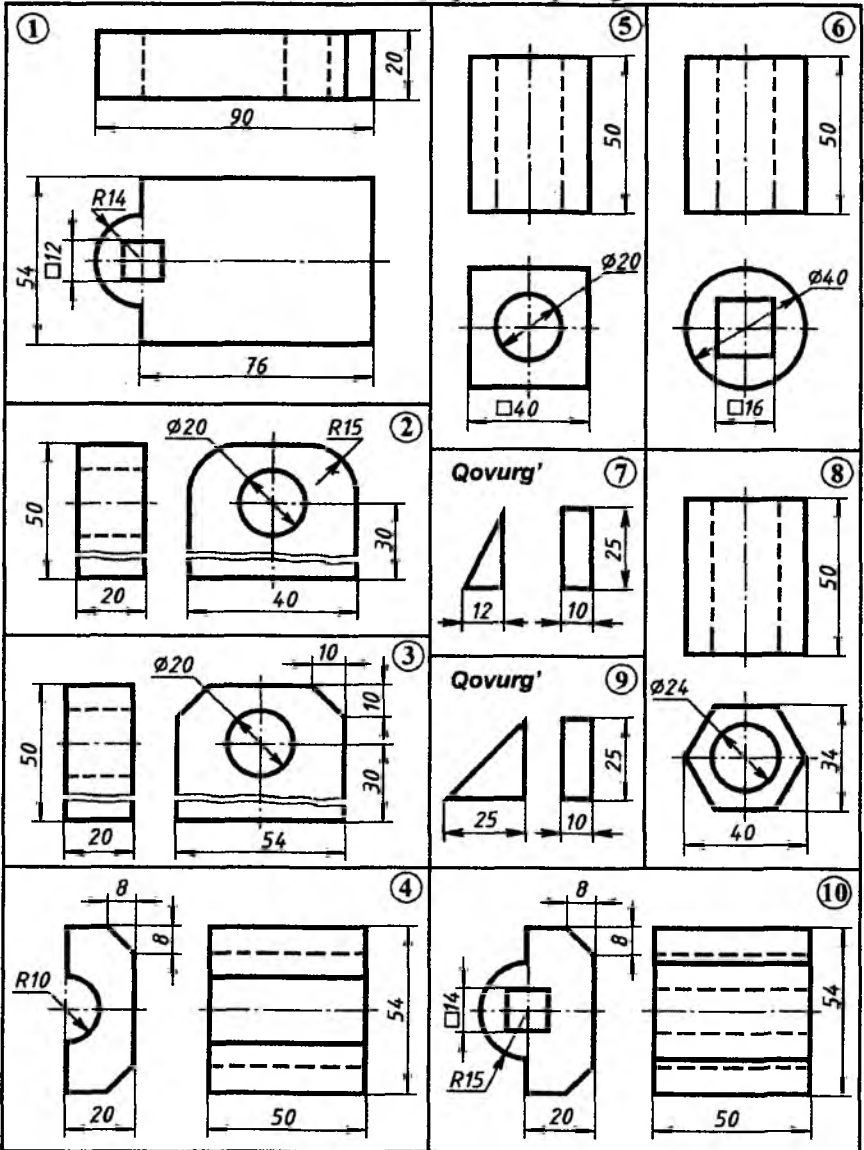
8-variant

Asos 1 ning ustiga 8 va 7 detallarni qo'ying (1 va 8 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



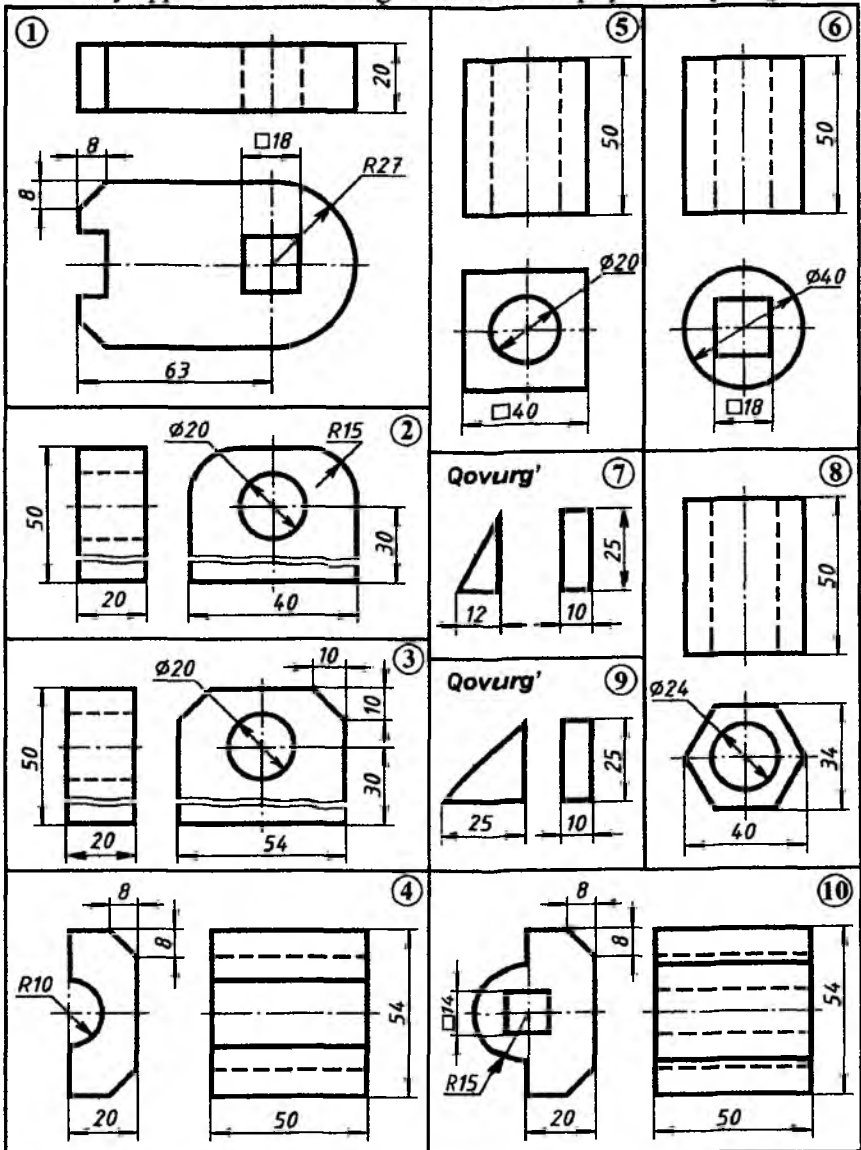
9-variant

Asos 1 ning o'ng chetiga 2 va 9 (2 ta) detallarni qo'ying.
 Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing
 hamda kerakli qirqimlar bajaring.



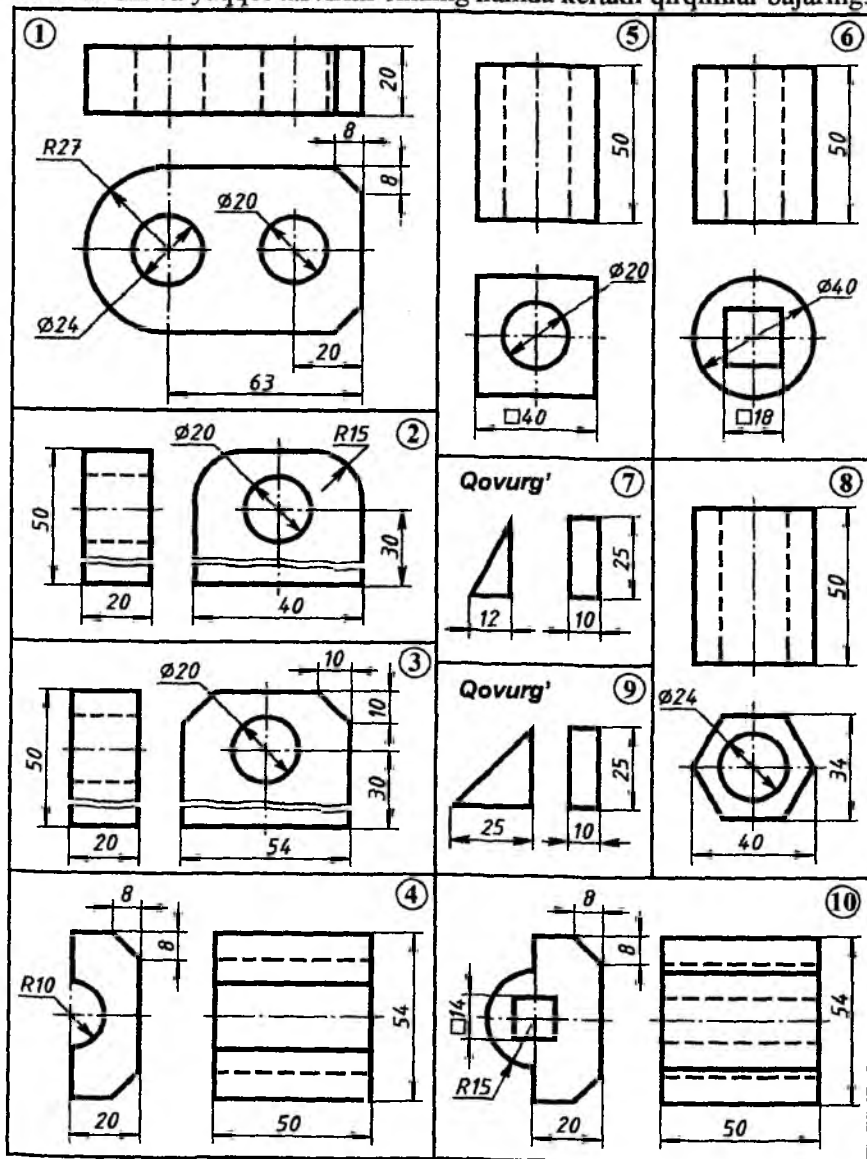
10-variant

Asos 1 ning ustiga 6 va 7 detallarni qo'ying (1 va 6 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



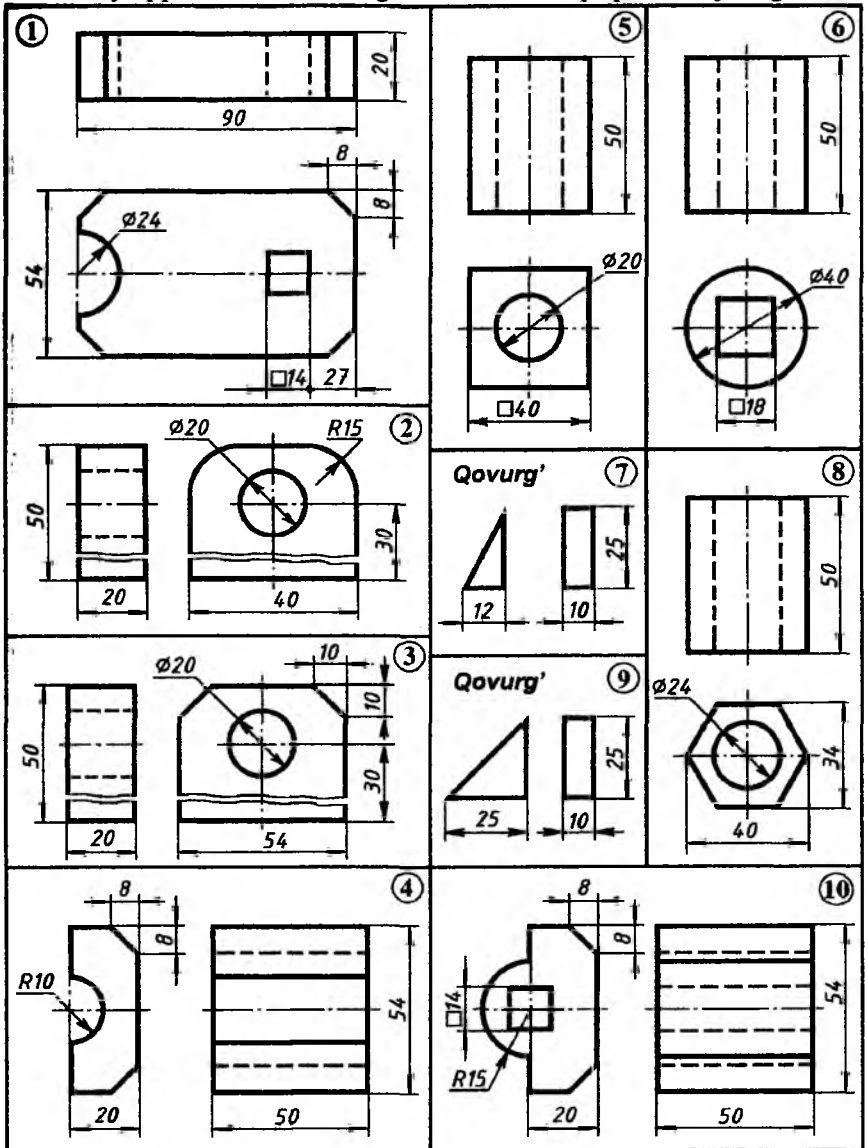
11-variant

Asos 1 ning ustiga 4 va 7 (2ta) detallarni qo'ying (1 va 4 detallardagi teshik va o'yiqlar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



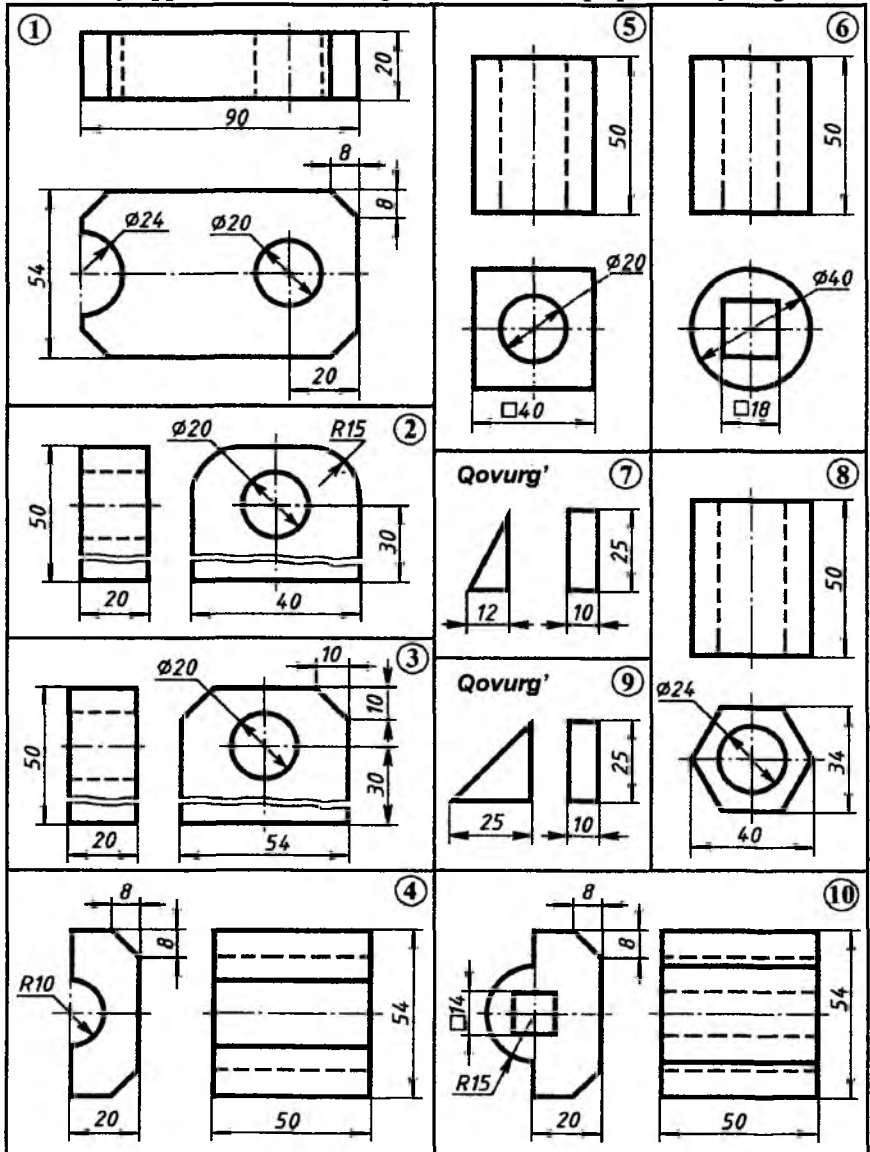
12-variant

Asos 1 ning ustiga 10 va 9 detallarni qo'ying (1 va 10 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



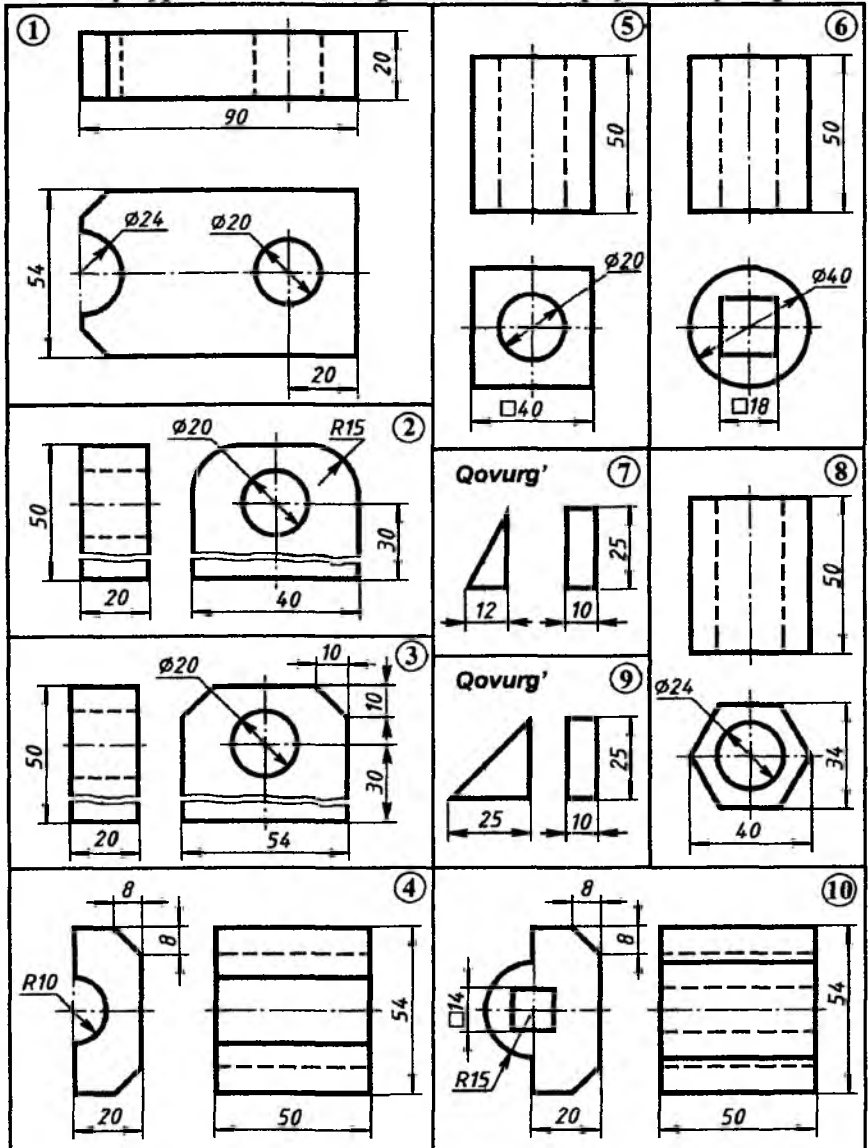
13-variant

Asos 1 ning ustiga 10 va 9 detallarni qo'ying (1 va 10 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



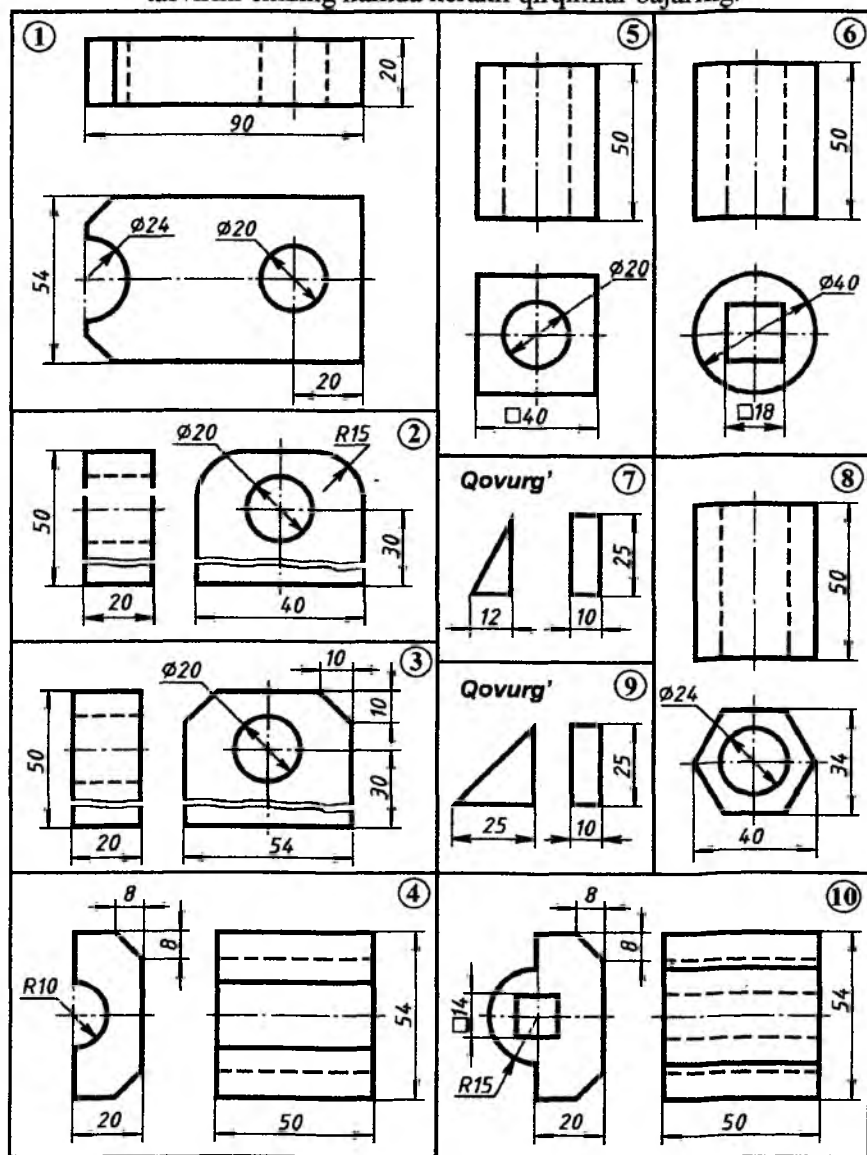
14-variant

Asos 1 ning ustiga 5 va 9 detallarni qo'ying (1 va 5 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



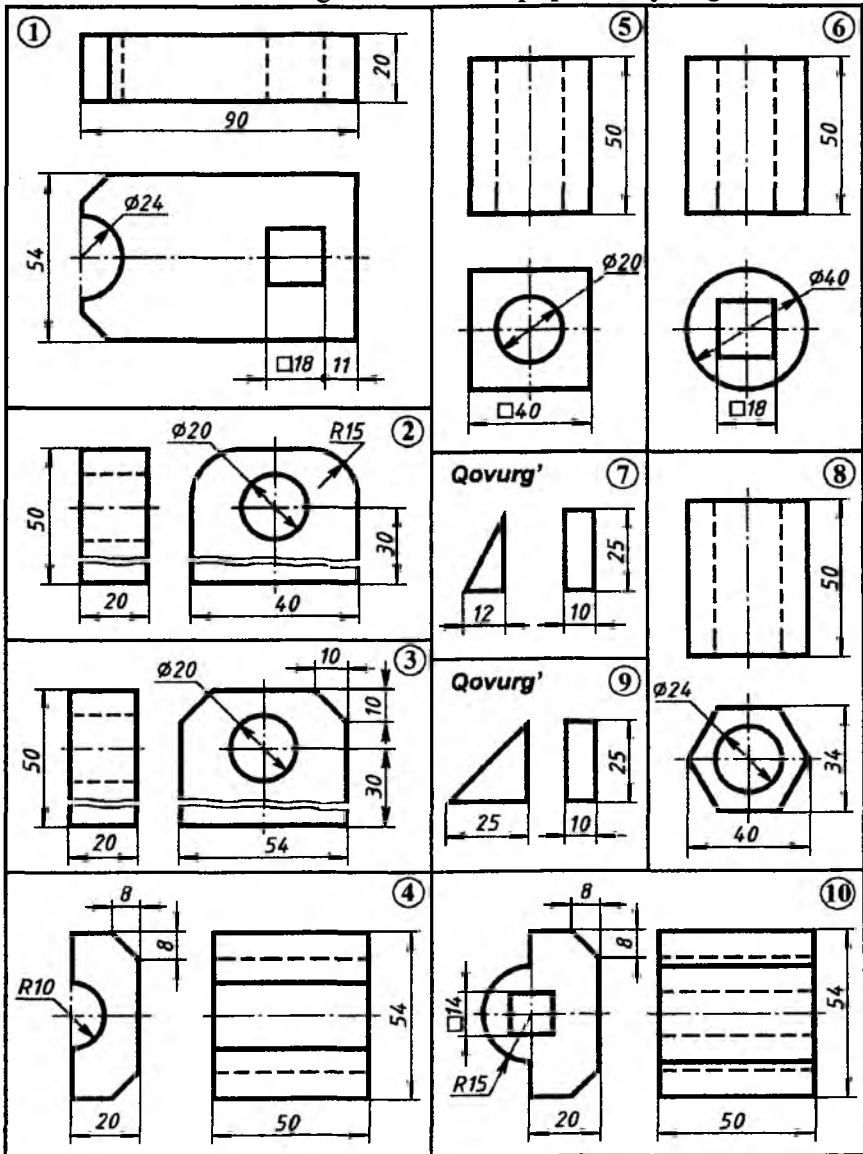
15-variant

Asos 1 ning ustiga 8 va 9 detallarni qo'ying (1 va 8 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



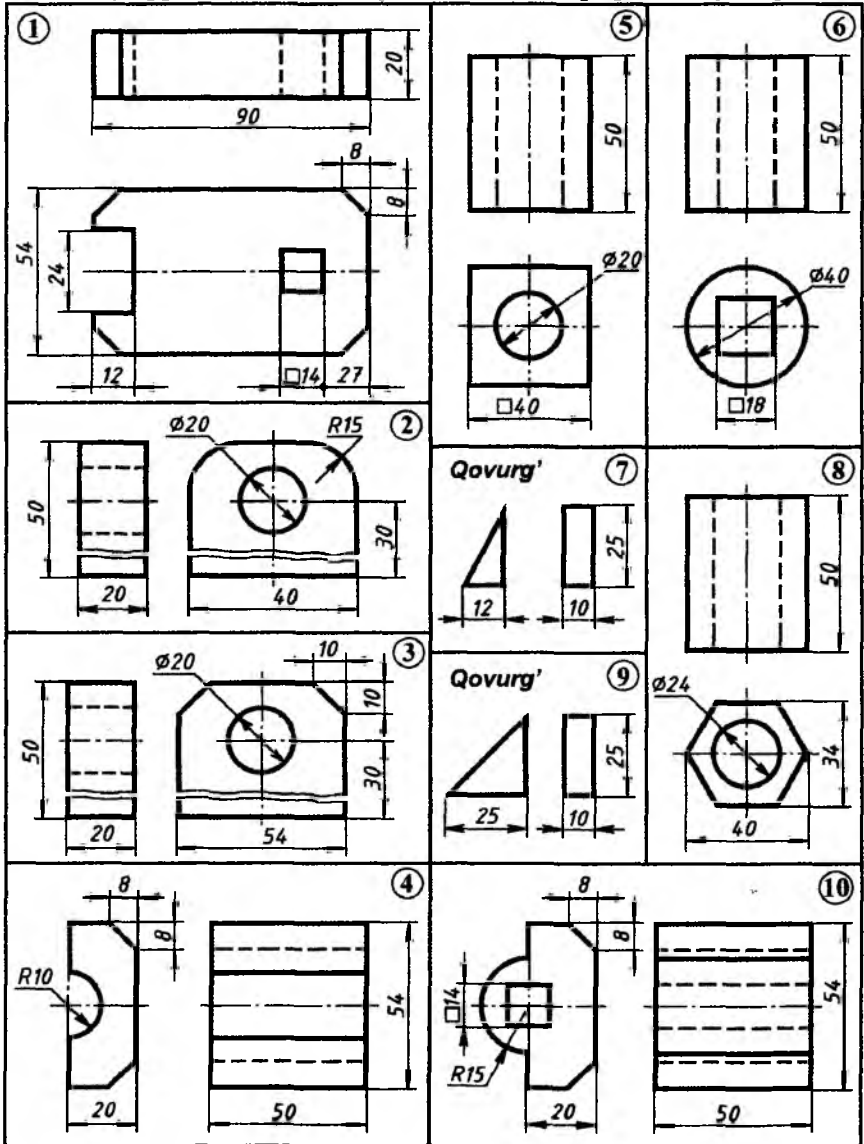
16-variant

Asos 1 ning ustiga 6 va 9 detallarni qo'ying (1 va 6 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



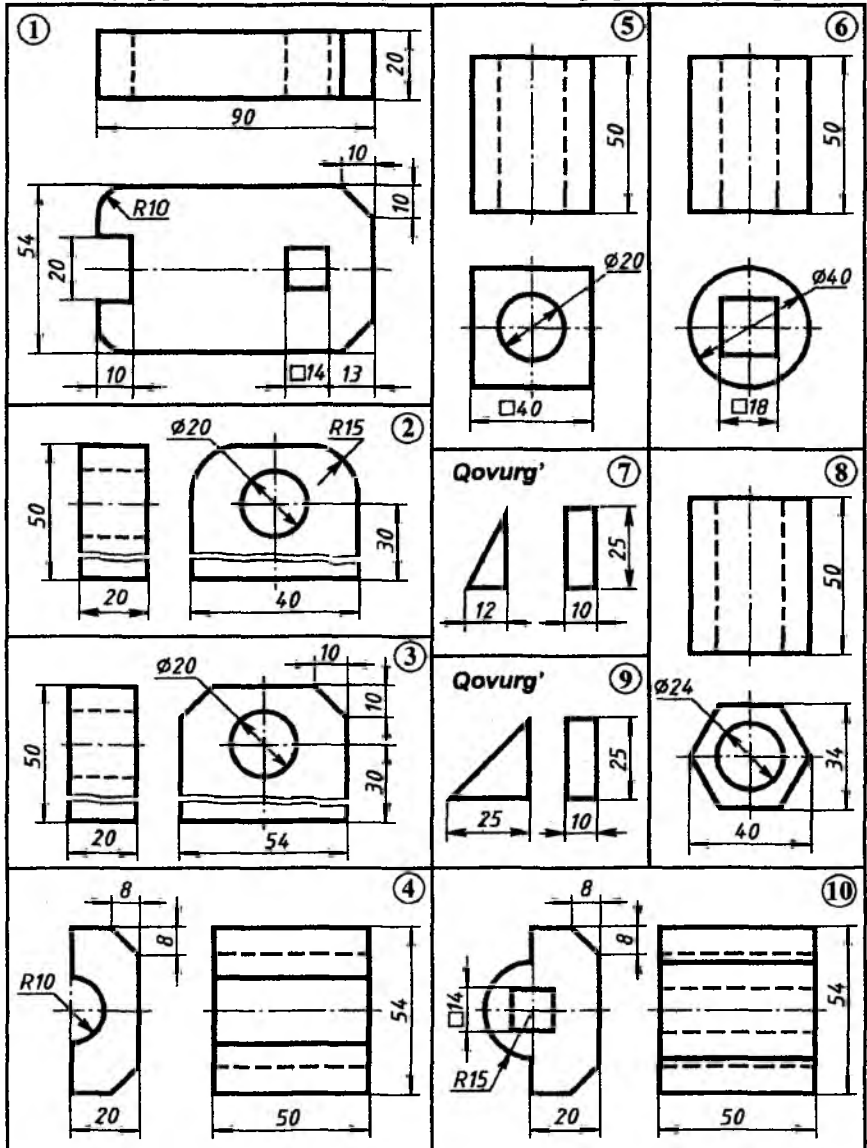
17-variant

Asos 1 ning ustiga 10 va 9 detallarni qo'ying (1 va 10 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



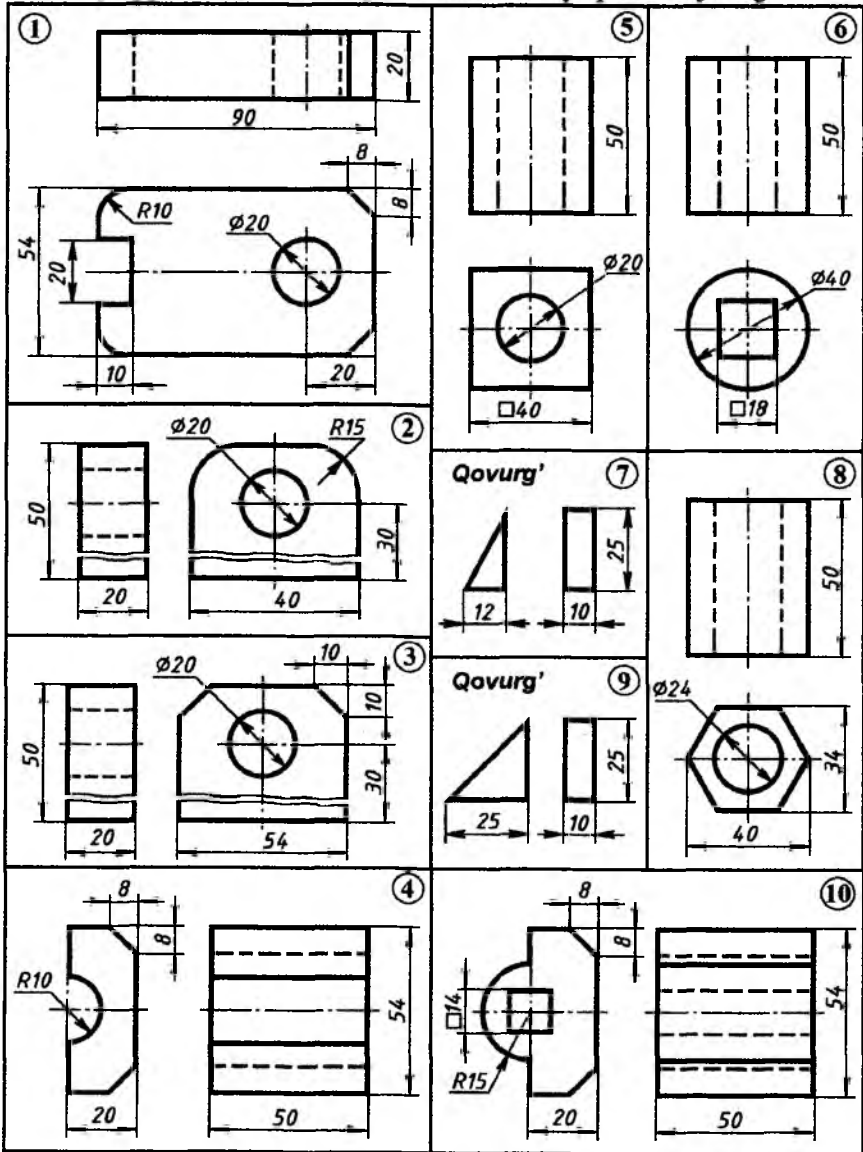
18-variant

Asos 1 ning ustiga 10 va 9 detallarni qo'ying (1 va 10 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



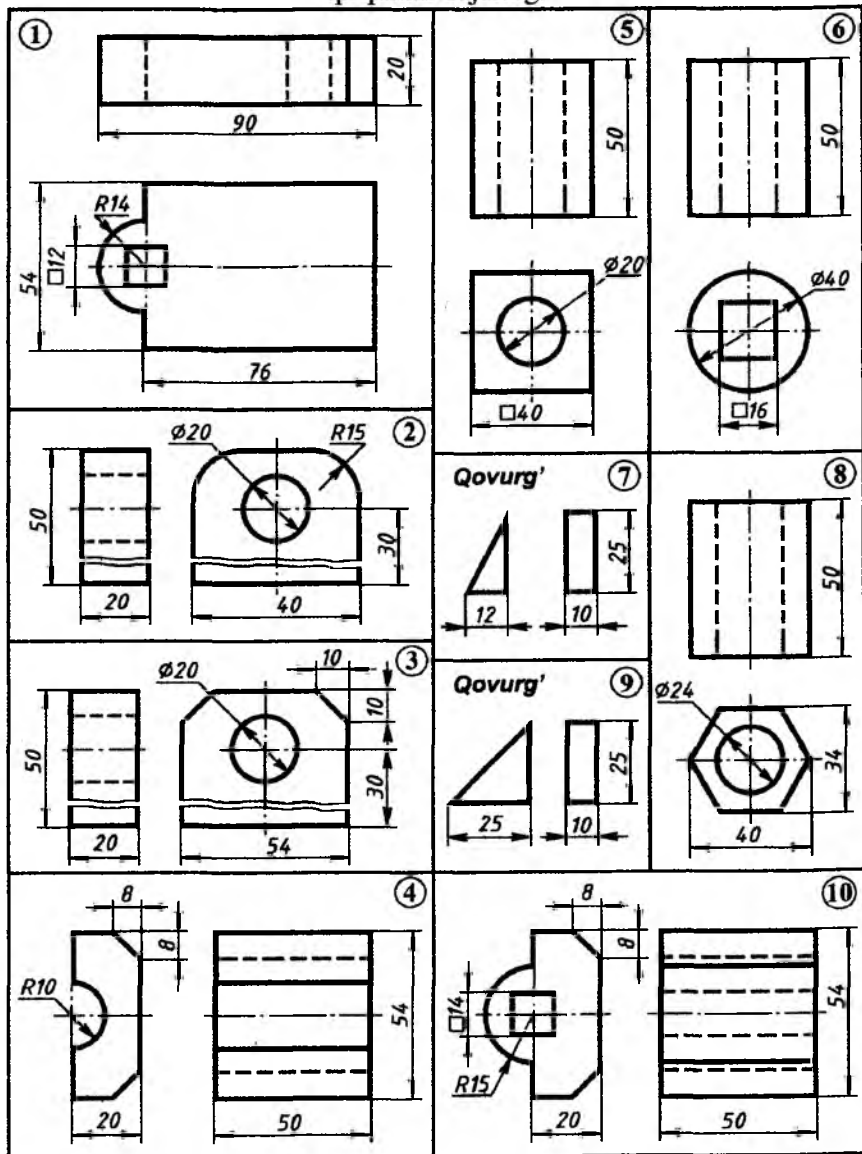
19-variant

Asos 1 ning ustiga 4 va 9 detallarni qo'ying (1 va 4 detallardagi teshik va o'yiqlar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



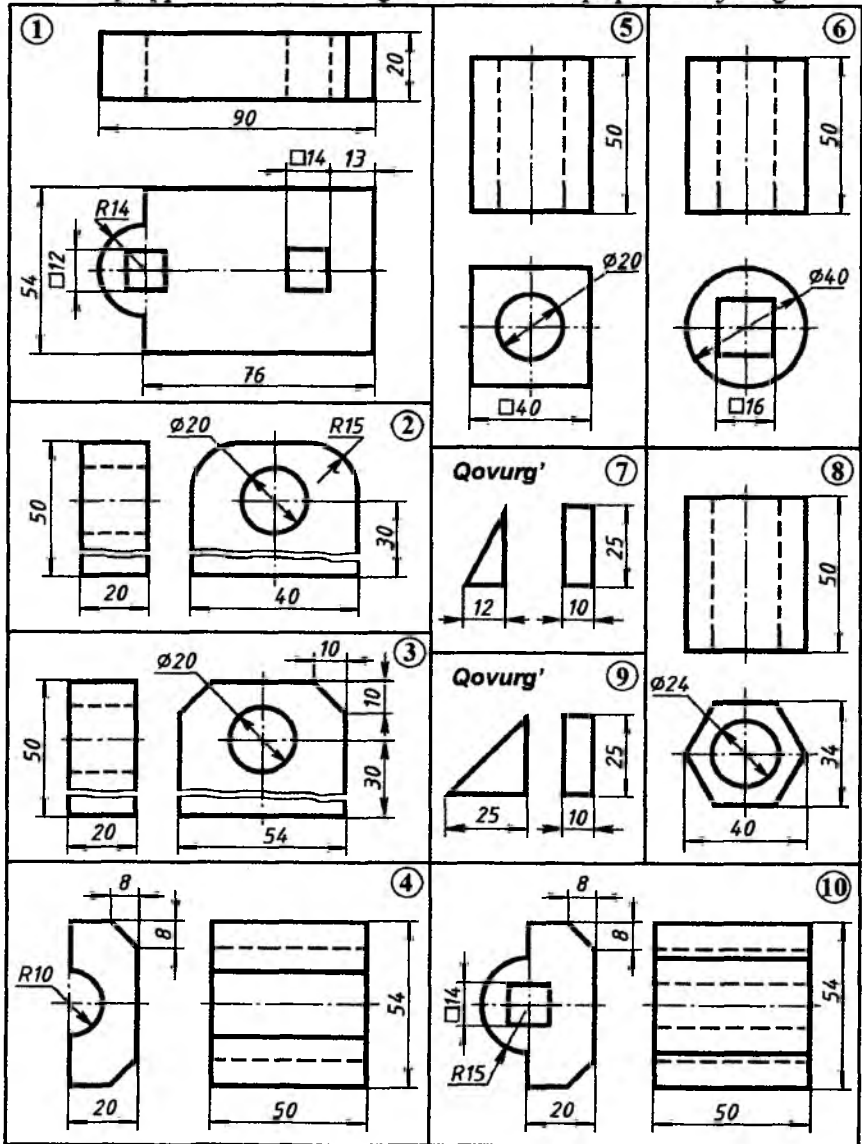
20-variant

Asos 1 ning ustiga 3 va 9 (2 ta) detallarni qo'ying. Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



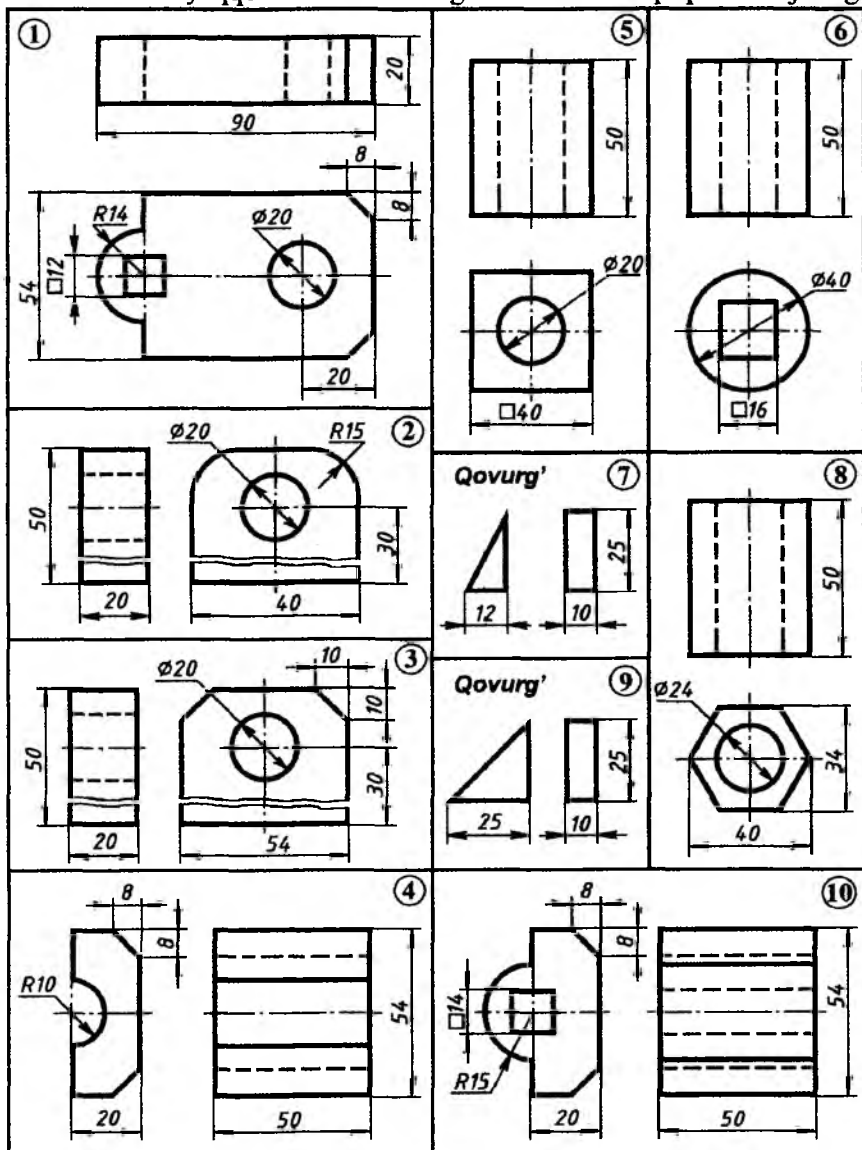
21-variant

Asos 1 ning ustiga 10 va 9 detallarni qo'ying (1 va 10 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



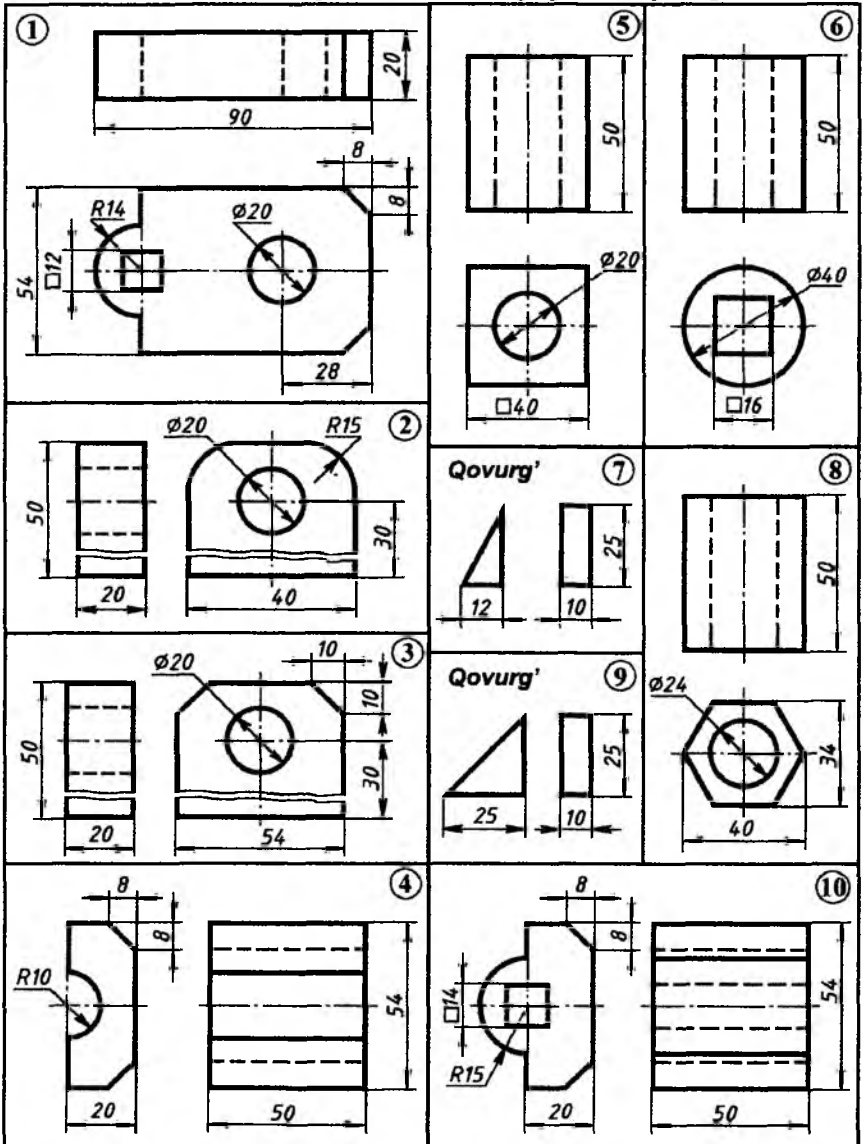
22-variant

Asos 1 ning ustiga 4 va 9 (2 ta) detallarni qo'ying (1 va 9 detallardagi teshik va o'yiqlar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



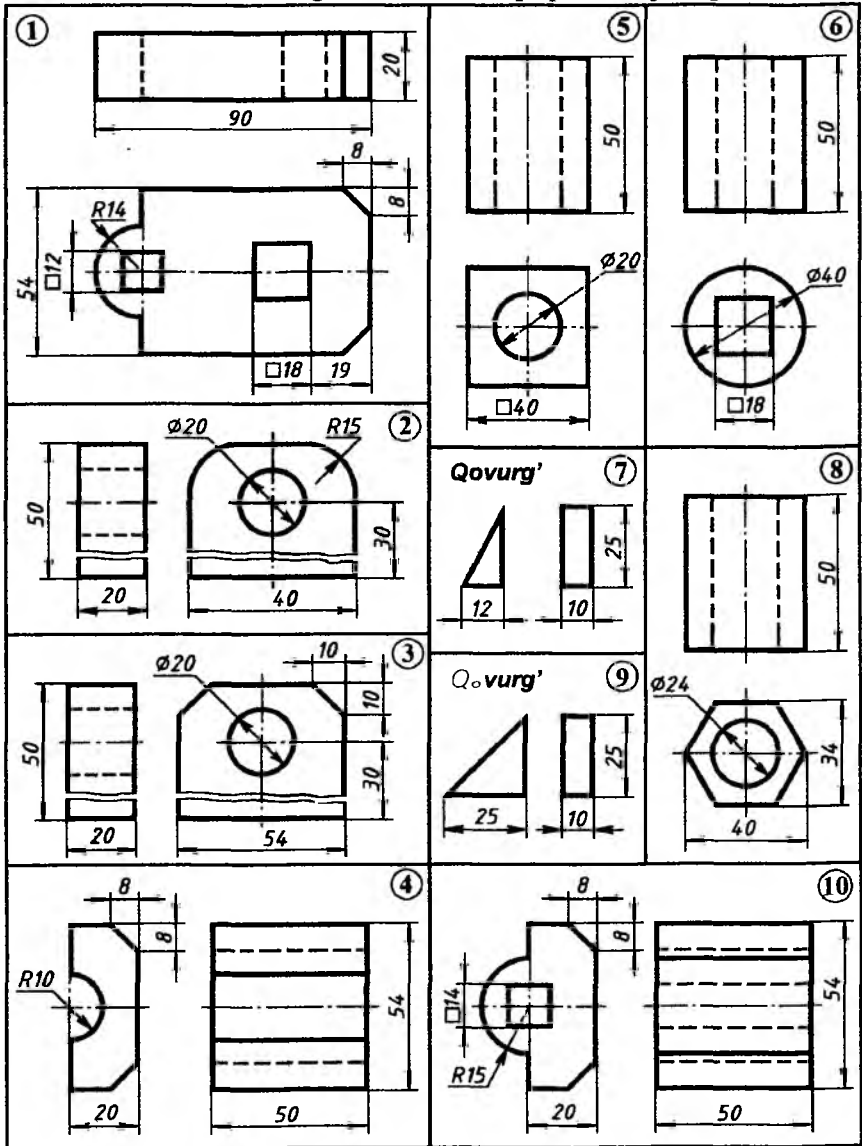
23-variant

Asos 1 ning ustiga 8 va 7 detallarni qo'ying (1 va 8 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



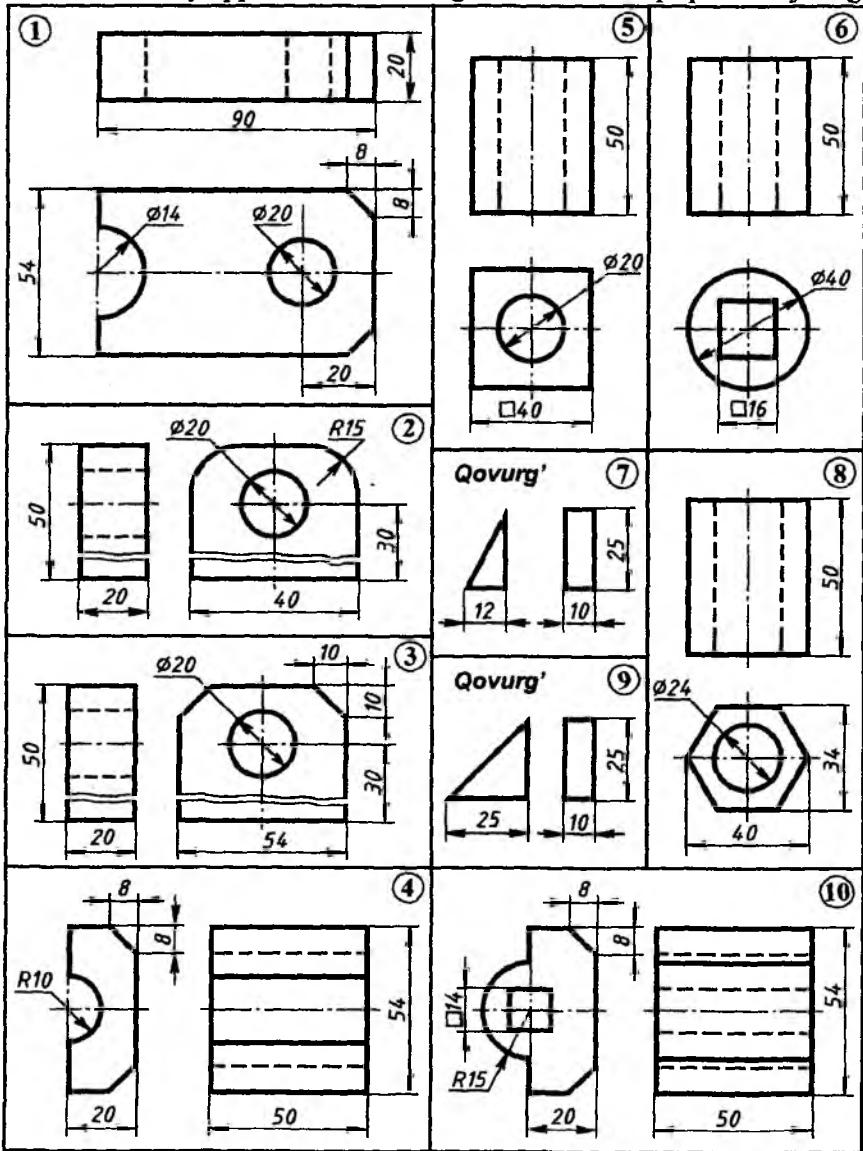
24-variant

Asos 1 ning ustiga 6 va 7 detallarni qo'ying (1 va 6 detallardagi teshiklar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



25-variant

Asos 1 ning ustiga 4 va 9 (2 ta) detallarni qo'ying (1 va 4 detallardagi teshik va o'yiqlarlar o'zaro mos tushsin). Hosil bo'lgan buyumning 3 ta ko'rinishini va yaqqol tasvirini chizing hamda kerakli qirqimlar bajaring.



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Mundarija

1. Kirish. Loyihalash.....	3
2. Detal shakliga o'zgartirish kiritish.....	4
3. Xomaki tanani o'yib detal hosil qilish.....	4
4. Detal ko'rinishini, uning qismlarini surish yoki burish orqali o'zgartirish.....	5
5. Texnik detallarni shakllantirish.....	5
6. Konstruktorlik (loyihalash) masalalari.....	8
7. Ilova.....	10
8. Berilgan sxema-chizma bo'yicha konstruksiyalash (loyihalash) uchun grafik ish variantlari.....	10
9. Detalning bo'rtma qismlarini o'yiqlarga, o'yiqli qismlarini esa bo'rtmalarga almashtirish uchun grafik ish namunasi va variantlari.....	14
10. Xomaki tanani belgilangan chiziqlar bo'yicha o'yib detal hosil qilish uchun grafik ish namunasi va variantlari.....	26
11. Alohida-alohida berilgan detal qismlaridan texnik detallarni shakllantirish uchun grafik ish namunasi va variantlari.....	40
12. Foydalanilgan adabiyotlar.....	65

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