

## Geometriya IX-sinf.I-chorak.Test.A-variant

- Tomoni 2 dm va 3 dm li togri tortburchak ichiga  $1 \text{ sm}^2$  lik kvadratchalardan nechta sigdirish mumkin?  
#1 6 ta #2 60 ta #3 0,6 ta #4 0,8 ta #5 8 ta
- Kvadrat yuzini 36 marta kamaytirish uchun uning tomonini necha marta kichraytirish kerak?  
#1 36 marta #2 72 marta #3 6 marta #4 8 marta #5 12 marta
- Togri burchakli uchburchakning yuzi  $168 \text{ gradus}$  ga teng. Agar katetlar nisbati  $7/12$  ga teng bolsa, katetlarni toping.  
#1  $21/36$  #2  $28/48$  #3  $14/24$  #4  $12/15$  #5  $23/37$
- Uchburchakning balandligi  $15 \text{ sm}$ , yuzi  $67,5 \text{ sm}^2$  bolsa, uning asosini toping.  
#1  $10 \text{ sm}$  #2  $8 \text{ sm}$  #3 uchburchak mavjud e'las. #4  $12 \text{ sm}$  #5  $9 \text{ sm}$
- Parallelogrammning ikki burchagi yig'indisi  $144^\circ$  ga teng. Uning burchaklarini toping.  
#1  $108^\circ, 108^\circ, 72^\circ, 72^\circ$  #2  $106^\circ, 106^\circ, 74^\circ, 74^\circ$  #3  $100^\circ, 100^\circ, 72^\circ, 72^\circ$  #4  $120^\circ, 120^\circ, 72^\circ, 72^\circ$  #5 TJY
- To'rtburchakning uchta burchagi  $126^\circ, 27^\circ$  va  $104^\circ$  ga tengligi ma'lum. Uning to'rtinchi burchagini toping.  
#1  $90^\circ$  #2  $104^\circ$  #3  $103^\circ$  #4  $180^\circ$  #5  $360^\circ$
- Quyidagi ta'riflardan qaysi biri to'g'ri?  
#1 Uchburchaklardan birining ikkita burchagi ikkinchisining ikkita burchagiga teng bo'lsa, ular o'xshash bo'ladi;  
#2 Uchburchaklardan birining ikkita tomoni ikkinchisining ikki tomoniga teng bo'lsa, ular o'xshash bo'ladi;  
#3 Ikkita uchburchakning bittadan burchaklari teng va ikkitadan tomonlari proporsional bo'lsa, ular o'xshash bo'ladi;  
#4 Ikkita uchburchakning bittadan burchaklari teng va bittadan tomonlari proporsional bo'lsa, ular o'xshash bo'ladi  
#5 To'g'ri javob yo'q
- Ikkita gomometik ko'pburchak uchun to'g'ri tasdiqni toping:  
#1 Ular teng #2 Ular o'xshash #3 Ular tengdosh #4 To'g'ri javob yo'q #5  $1,2$  to'g'ri
- Ikkita o'xshash ko'pburchak uchun noto'g'ri tasdiqni ko'rsating:  
#1 Perimetrlari nisbati tomonlari nisbatiga teng #2 Yuzlari nisbati tomonlari nisbatining kvadratiga teng  
#3 Yuzlarining nisbati o'xshashlik koeffitsiyentining kvadratiga teng #4 Perimetrlar nisbati o'xshashlik koeffitsiyentining kvadratiga teng #5  $1,4$  to'g'ri
- Romb burchaklaridan biri ikkinchisidan 5 marta katta. Rombning burchaklarini toping.  
#1  $150^\circ, 150^\circ, 30^\circ, 30^\circ$  #2  $250^\circ, 250^\circ, 50^\circ, 50^\circ$  #3  $175^\circ, 175^\circ, 35^\circ, 35^\circ$  #4  $170^\circ, 170^\circ, 34^\circ, 34^\circ$  #5  $36^\circ, 36^\circ, 144^\circ, 144^\circ$
- Teng yonli uchburchakning yon tomoni 6 m ga teng. Shu uchburchakning asosida olingan nuqtadan uning yon tomonlariga parallel ikkita to'g'ri chiziq o'tkazilgan. Hosil qilingan parallelogrammning perimetrini toping.  
#1 10 m #2 15 m #3 8 m #4 12 m #5 7 m
- To'rtburchak deb nimaga aytiladi?  
#1 To'rtta burchakka ega bo'lgan shakl #2 To'rtta nuqta va bu nuqtalarni ketma-ket tutashtiruvchi to'rtta kesmadan tashkil topgan shakl #3 To'rttala burchagi ham teng bo'lgan shakl #4 To'rttala tomonii ham teng bo'lgan shakl #5 To'rttala burchagi ham tomoni ham teng bo'lgan shakl
- Diagonal deb nimaga aytiladi?  
#1 Ko'pburchakni qo'shni uchlarni tutashtiruvchi kesmaga #2 Ko'pburchakni qarama-qarshi uchlarni tutashtiruvchi kesmaga #3 Ko'pburchakning uchlariga #4 Ko'pburchakning tomonlariga #5 Hammasi to'g'ri
- Romb deb nimaga aytiladi?  
#1 To'rttala burchagi ham teng bo'lgan parallelogramm #2 To'rtta nuqta va bu nuqtalarni ketma-ket tutashtiruvchi to'rtta kesmadan tashkil topgan shakl #3 Qarama-qarshi tomonlari parallel to'g'ri chiziqlarda yotgan parallelogramm #4 To'rttala tomonii ham teng bo'lgan shakl #5 To'rttala burchagi ham teng bo'lgan shakl
- ABCD parallelogramda  $AB=10 \text{ sm}$ ,  $BC=15 \text{ sm}$ ,  $AD$  va  $CD$  tomonlar nimaga teng?  
#1  $AD=15 \text{ sm}$   $CD=10 \text{ sm}$  #2  $AD=12 \text{ sm}$   $CD=13 \text{ sm}$  #3  $AD=15 \text{ sm}$   $CD=12 \text{ sm}$  #4  $AD=10 \text{ sm}$   $CD=10 \text{ sm}$  #5 TJY
- ABCD parallelogramda  $\angle A=30^\circ$ . Qolgan burchaklarni toping.  
#1  $40^\circ, 30^\circ, 150^\circ, 140^\circ$  #2  $50^\circ, 30^\circ, 130^\circ, 130^\circ$  #3  $30^\circ, 30^\circ, 150^\circ, 150^\circ$  #4  $30^\circ, 60^\circ, 140^\circ, 150^\circ$  #5 TJY
- ABCD parallelogramning perimetri  $10 \text{ sm}$  ga teng. ABD uchburchakning perimetri  $8 \text{ sm}$  ga tengligini bilgan holda BD diagonalning uzunligini toping.  
#1  $30 \text{ sm}$  #2  $5 \text{ sm}$  #3  $8 \text{ sm}$  #4  $3 \text{ sm}$  #5  $2 \text{ sm}$
- Parallelogramm burchaklaridan biri  $66^\circ$ . O'tmas burchakdan o'tkir burchakni ayirmasini toping.  
#1  $48^\circ$  #2  $114^\circ$  #3  $50^\circ$  #4  $66^\circ$  #5  $150^\circ$
- Rombning tomonlaridan biri bilan uning diagonalari hosil qiladigan burchaklari nisbati  $4:5$  ga teng. Rombning kichik burchagini toping
- Romb diagonalaridan biri uning tomoniga teng. Rombning kichik burchagini toping.
- Teng yonli to'g'ri burchakli uchburchak ichiga kvadrat shunday chizilganki, uning ikkita uchi gipotenuzada, qolgan ikkita uchi esa katetlarda yotadi. Gipotenuza  $3 \text{ m}$  gat eng ekani ma'lum bo'lsa, kvadrat tomonini toping.
- Uchburchakning tomonlari  $8 \text{ sm}$ ,  $10 \text{ sm}$ ,  $12 \text{ sm}$  ga teng. Uchlari shu uchburchak tomonlarining o'rtalarida yotgan uchburchak eng katta tomonini toping.
- ABCD trapetsiyaning  $Bc$  va  $AD$  asoslarida mos ravishda  $K$  va  $L$  nuqtalar olingan.  $KL$  kesma trapetsiyaning diagonalari kesishgan nuqtadan o'tadi. Agar  $AL=4$ ,  $LD=5$  va  $BK=2$  bo'lsa,  $KC$  kesmani toping.
- Ikkita o'xshash uchburchaklarning perimetrlari  $18 \text{ dm}$  va  $36 \text{ dm}$  ga, yuzlarining yig'indisi  $30 \text{ dm}^2$  ga teng. Katta uchburchakning yuzini toping.
- Ikki to'g'ri chiziqning kesishishidan hosil bo'lgan burchaklardan uchtasining yig'indisi  $200^\circ$  ga teng. Burchaklardan kattasini toping.

## Geometriya IX-sinf.I-chorak.Test.B-variant

1. Trapetsiya balandligi 5 sm, kichik asosi 6 sm va katta asosidan 2,5 marta kichik bolsa, tapetsiya yuzini toping.  
#1  $21 \text{ sm}^2$  #2  $115 \text{ sm}^2$  #3  $116 \text{ sm}^2$  #4  $77,5 \text{ sm}^2$  #5  $82,8 \text{ sm}^2$
2. Togri burchakji uchburchakning b kateti 24 sm va gipotenuzasi 26 sm bolsa, katetini toping.  
#1  $7 \text{ sm}^2$  #2  $10 \text{ sm}^2$  #3  $8 \text{ sm}^2$  #4  $11 \text{ sm}^2$  #5  $5 \text{ sm}^2$
3. Tomonlari 5,5,6 bolgan uchburchak yuzini toping.  
#1  $16 \text{ sm}^2$  #2  $18 \text{ sm}^2$  #3  $10 \text{ sm}^2$  #4  $15 \text{ sm}^2$  #5  $12 \text{ sm}^2$
4. Tomonlari 10sm, 10sm, 12sm ga teng bolgan uchburchakning katta tomoniga tushirilgan balandligini toping.  
#1 9,6 #2 9 #3 8 #4 6,9 #5 8,2
5. ABS uchburchakda  $AB=5 \text{ sm}$   $BC=7 \text{ sm}$  va  $AC=10 \text{ sm}$  bolsa AC tomonga tushirilgan balandlikni toping .  
#1 2 #3 2 #4 6 #5 0
6. Parallelogrammning ikki burchagi yig'indisi  $148^\circ$  ga teng.Uning burchaklarini toping.  
#1  $108^\circ, 108^\circ, 72^\circ, 72^\circ$  #2  $106^\circ, 106^\circ, 74^\circ, 70^\circ$  #3  $100^\circ, 100^\circ, 72^\circ, 72^\circ$  #4  $106^\circ, 106^\circ, 74^\circ, 74^\circ$  #5 TJY
7. To'g'ri to'rtburchak diagonallari orasidagi burchak  $64^\circ$ . Uning bir diagonali bilan tomonlari orasidagi burchaklarni toping.  
#1  $34^\circ, 56^\circ$  #2  $64^\circ, 26^\circ$  #3  $66^\circ, 24^\circ$  #4  $58^\circ, 32^\circ$  #5  $45^\circ, 45^\circ$
8. To'g'risini toping. Agar ikkita uchburchak o'xshash bo'lsa, ularning  
#1 burchaklari proporsional bo'ladi #2 tomonlari proporsional bo'ladi #3 tomonlari teng bo'ladi  
#4 yuzlari teng bo'ladi #5 To'g'ri javob yo'q
9. Uchburchak medianalari uchun noto'g'ri tasdiqni ko'rsating:  
#1 Bir nuqtada kesishadi #2 Kesishish nuqtasida 2:1 nisbatda bo'linadi #3 Bir-biriga teng  
#4 Har biri uchburchakni ikkita tengdosh qismga ajratadi #5 2,3 to'g'ri
10. Teng yonli trapetsiyaning ikkita burchagi ayirmasi  $50^\circ$  ga teng. Uning burchaklarini toping.  
#1  $108^\circ, 108^\circ, 72^\circ, 72^\circ$  #2  $110^\circ, 110^\circ, 70^\circ, 70^\circ$  #3  $115^\circ, 115^\circ, 65^\circ, 65^\circ$  #4  $106^\circ, 106^\circ, 74^\circ, 74^\circ$  #5 TJY
11. Romb burchaklaridan biri ikkinchisidan 2 marta katta .Rombning burchaklarini toping.  
#1  $64^\circ, 64^\circ, 32^\circ, 32^\circ$  #2  $100^\circ, 100^\circ, 50^\circ, 50^\circ$  #3  $700^\circ, 70^\circ, 35^\circ, 35^\circ$  #4  $120^\circ, 120^\circ, 60^\circ, 60^\circ$  #5  $36^\circ, 36^\circ, 144^\circ, 144^\circ$
12. Teng yonli uchburchakning yon tomoni 7,5 m ga teng. Shu uchburchakning asosida olingan nuqtadan uning yon tomonlariga parallel ikkita to'g'ri chiziq o'tkazilgan. Hosil qilingan parallelogrammning perimetrini toping.  
#1 10 m #2 15 m #3 8 m #4 12 m #5 7 m
13. To'g'ri to'rtburchak deb qanday shaklga aytiladi?  
#1 To'rtta burchakka ega bo'lgan shakl #2 To'rtta nuqta va bu nuqtalarni ketma-ket tutashtiruvchi to'rtta kesmadan tashkil topgan shakl #3 To'rttala burchagi ham teng bo'lgan to'rtburchak #4 To'rttala tomonii ham teng bo'lgan shakl #5 To'rttala burchagi ham tomoni ham teng bo'lgan shakl
14. Ko'pburchakning perimetri deb nimaga aytiladi?  
#1 Ko'pburchakni qo'shni uchlarni tutashtiruvchi kesmaga #2 Ko'pburchakni qarama-qarshi uchlarni tutashtiruvchi kesmaga #3 Ko'pburchakning uchlari #4 Ko'pburchakning tomonlari uzunliklarining ytig'indisiga #5 Hammasi to'g'ri
15. ... ning diagonallari perpendikulyar.  
#1 To'g'ri to'rtburchak #2 Romb #3 Trapetsiya #4 Hammasi to'g'ri #5 TJY
16. ABCD parallelogramda  $AB=10 \text{ sm}$ ,  $BC=15 \text{ sm}$ , AD va CD tomonlar yig'indisi nimaga teng?  
#1 30s m #2 25 sm #3 28 sm #4 32 sm #5 27 sm
17. ABCD parallelogrammda  $\angle A=30^\circ$ . Qolgan burchaklar yig'indisini toping.  
#1  $90^\circ$  #2  $104^\circ$  #3  $103^\circ$  #4  $180^\circ$  #5  $330^\circ$
18. Parallelogramm burchaklaridan biri  $56^\circ$ . Qolgan burchaklarini toping.  
#1  $40^\circ, 56^\circ, 140^\circ$  #2  $56^\circ, 124^\circ, 124^\circ$  #3  $56^\circ, 150^\circ, 150^\circ$  #4  $56^\circ, 64^\circ, 140^\circ$  #5 TJY
19. Parallelogramm burchaklaridan biri ikkinchisidan  $70^\circ$  katta. Parallelogrammning o'tkir burchagini toping.
20. Rombning tomonlaridan biri bilan uning diagonallari hosil qiladigan burchaklari nisbati 4:5 ga teng. Rombning katta burchagini toping
21. Romb diagonallaridan biri uning tomoniga teng. Rombning katta burchagini toping.
22. Uchburchakning tomonlari 8 sm, 10 sm, 12 sm ga teng. Uchlari shu uchburchak tomonlarining o'rtalarida yotgan uchburchak tomonlarini toping.
23. Teng yonli trapetsiyaning qarama-qarshi burchaklari ayirmasi  $40^\circ$  ga teng ekani ma'lum bo'lsa, uning burchaklari nimaga teng?
24. To'rtburchak shaklidagi paxta maydoni xaritada yuzi  $12 \text{ sm}^2$  bo'lgan to'rtburchak bilan tasvirlanadi. Agar xarita masshtabi 1:1000 bo'lsa, maydonning haqiqiy yuzini hisoblang.
25. Asoslari 6 m va 12 m bo'lgan trapetsiya diagonallari kesishgan nuqtadan asoslarga parallel to'g'ri chiziq o'tkazilgan. To'g'ri chiziqning trapetsiya ichidagi qismi uzunligini toping.

## Geometriya IX-sinf.I-chorak.Test.C-variant

- Parallelogrammning ikki burchagi yig'indisi  $144^{\circ}$  ga teng. Uning qo'shni burchaklari yig'indisini toping.  
#1  $120^{\circ}$  #2  $150^{\circ}$  #3  $132^{\circ}$  #4  $90^{\circ}$  #5  $180^{\circ}$
- Quyidagi ta'riflardan qaysi biri to'g'ri?  
#1 Ikkita uchburchakning burchaklari mos ravishda teng bo'lsa, ular o'xshash deyiladi  
#2 Ikkita uchburchakning tomonlari mos ravishda teng bo'lsa, ular o'xshash deyiladi  
#3 Ikkita uchburchakning mos tomonlari proporsional va mos burchaklari teng bo'lsa, ular o'xshash deyiladi  
#4 Ikkita uchburchakning mos tomonlari va mos burchaklari teng bo'lsa, ular o'xshash deyiladi #5 To'g'ri javob yo'q
- O'xshash uchburchaklarning perimetrlari nisbati nimaga teng?  
#1 Mos tomonlar nisbatining kvadratiga #2 O'xshashlik koeffitsiyentiga #3 O'xshashlik koeffitsiyentining kvadratiga #4 Yuzlari nisbatiga  
#5 To'g'ri javob yo'q
- Uchburchak bissektrisalari uchun noto'g'ri tasdiqni ko'rsating:  
#1 #1 Bir nuqtada kesishadi #2 Kesishish nuqtasida 2:1 nisbatda bo'linadi #3 Ozi tushgan tomonni qolgan ikki tomonga proporsional kesmalarga ajratadi #4 O'zi chiqqan uchdagi burchakni teng ikkiga bo'ladi  
#5 3,4 to'g'ri
- Teng yonli trapetsiyaning ikkita burchagi ayirmasi  $50^{\circ}$  ga teng. Uning o'tmas burchagi va o'tkir burchagi yig'indisini yarmini toping.  
#1  $90^{\circ}$  #2  $104^{\circ}$  #3  $103^{\circ}$  #4  $180^{\circ}$  #5  $360^{\circ}$
- Uchlari bir to'g'ri chiziqda yotmagan, berilgan uchta nuqtadan iborat nechta parallelogram yasash mumkin?  
#1 2 ta #2 4 ta #3 3 ta #4 5 ta #5 6 ta
- Parallelogramm diagonallarining kesishish nuqtasidan uning ikkita uchigacha bo'lgan masofalar 3 sm va 4 sm ga teng. Undan qolgan ikkita uchigacha bo'lgan masofalar qanchaga teng?  
#1 5 sm va 6 sm #2 6 sm va 8 sm #3 3 sm va 4 sm #4 2 sm va 3 sm #5 4 sm va 6 sm
- ABS uchburchak tomonlari  $AB=10$  sm  $BC=2$  sm va  $AC=8$  sm bolsa, AB tomonga tushirilgan balandlikni toping.  
#1  $2\sqrt{2}$  #2 1 #3 Uchburchak mavjud emas #4  $5\sqrt{5}$  #5 6
- To'g'ri burchakli uchburchak kateti 8 sm, uning gipo'tenuzadagi proyeksiyasi esa 6,4 sm. Shu uchburchakning yuzini toping.  
#1  $25,6\sqrt{2}$  #2  $48\sqrt{3}$  #3  $51,2$  #4  $24\sqrt{5}$  #5 18
- Katetlaridan biri 8 ga teng bo'lgan to'g'ri burchakli uchburchak gipotenuzasining ikkinchi katetga nisbati 5:3 ga teng. Uchburchakning yuzini toping.  
#1 12 #2 15 #3 20 #4 24 #5 48
- To'g'ri burchakli uchburchakning katetlari 24 va 7 ga teng. Kichik katetning gipotenuzadagi proeksiyasini toping.  
#1  $3\frac{7}{2}$  #2  $5\sqrt{3}$  #3  $2\frac{4}{25}$  #4  $1\frac{4}{25}$  #5 3
- To'g'ri burchakli uchburchakning gipotenuzasi 25 ga, katetlaridan biri 10 ga teng. Ikkinchi katetning gipotenuzadagi proeksiyasini toping.  
#1 14 #2  $15,5\sqrt{3}$  #3 18 #4 20,4 #5 21
- Kvadrat deb qanday shaklga aytiladi?  
#1 To'rtta burchakka ega bo'lgan shakl #2 To'rtta nuqta va bu nuqtalarni ketma-ket tutashtiruvchi to'rtta kesmadan tashkil topgan shakl #3 To'rttala burchagi ham teng bo'lgan to'rtburchak #4 To'rttala tomonii ham teng bo'lgan shakl #5 To'rttala burchagi ham tomoni ham teng bo'lgan to'g'ri to'rtburchak
- Trapetsiyaning o'rta chizigi deb nimaga aytiladi?  
#1 Ko'pburchakni qo'shni uchlarni tutashtiruvchi kesmaga #2 Ko'pburchakni qarama-qarshi uchlarni tutashtiruvchi kesmaga #3 Yon tomonlari o'rtalarini tutashtiruvchi kesmaga #4 Ko'pburchakning tomonlariga #5 Hammasi to'g'ri
- ABCD parallelogramm diagonallarining kesishish nuqtasi orqali to'g'ri chiziq o'tkazilgan. Bu to'g'ri chiziq BC va AD tomonlardan  $BE=2$  m va  $AF=2\sqrt{8}$  m kesmalarni ajratadi. BC va AD tomonlarini toping.  
#1 4,6 m #2 4,8 m #3 9,6 m #4 5,6 m #5 8,2 m
- ABCD parallelogrammda  $AB=10$  sm,  $BC=15$  sm, AD va CD tomonlar ayirmasi nimaga teng?  
#1 10 sm #2 15 sm #3 18 sm #4 5 sm #5 7 sm
- ABCD parallelogrammda  $\angle A=30^{\circ}$ . Qolgan burchaklardan kichigini toping. #1  $30^{\circ}$  #2  $40^{\circ}$  #3  $50^{\circ}$  #4  $180^{\circ}$  #5  $150^{\circ}$
- Parallelogramm burchaklaridan biri  $66^{\circ}$ . Qolgan burchaklaridan kichigini toping.  
#1  $30^{\circ}$  #2  $114^{\circ}$  #3  $50^{\circ}$  #4  $66^{\circ}$  #5  $150^{\circ}$
- Parallelogramm burchaklaridan biri ikkinchisidan  $70^{\circ}$  katta. Parallelogrammning o'tmas burchagini toping.
- Rombning tomonlaridan biri bilan uning diagonallari hosil qiladigan burchaklari nisbati 4:5 ga teng. Rombning katta burchagidan kichik burchagi ayirmasini toping
- Romb diagonallaridan biri uning tomoniga teng. Rombning kichik burchagidan burchagiga nisbatini toping.
- Uchburchakning tomonlari 8 sm, 10 sm, 12 sm ga teng. Uchlari shu uchburchak tomonlarining o'rtalarida yotgan uchburchak perimetrini toping.
- Teng yonli trapetsiyaning qarama-qarshi burchaklari ayirmasi  $40^{\circ}$  ga teng ekani ma'lum bo'lsa, uning o'tmas burchagi va o'tkir burchagi ayirmasi nimaga teng?
- Yuzlari  $8\text{ sm}^2$  va  $32\text{ sm}^2$  bo'lgan ikkita o'xshash uchburchak perimetrlarining yig'indisi 48 sm 3at eng. Uchburchaklarning kichigini perimetrini toping.
- ABC uchburchakda  $BC=BA=10$ ,  $AC=8$ . Agar  $AA_1$  va  $CC_1$  uchburchak bissektrisalari bo'lsa,  $A_1C_1$  kesmani toping.

## Geometriya IX-sinf.I-chorak.Test.D-variant

- To'rtburchakning uchta burchagi  $56^{\circ}$ ,  $87^{\circ}$  va  $134^{\circ}$  ga tengligi ma'lum. Uning to'rtinchi burchagini toping.  
#1  $90^{\circ}$  #2  $83^{\circ}$  #3  $87^{\circ}$  #4  $180^{\circ}$  #5  $360^{\circ}$
- Ikkita o'xshash uchburchak yuzlarining nisbati nimaga teng/  
#1 O'xshashlik koeffitsiyentiga #2 Ularning mos tomonlari nisbatiga #3 Ularning perimetrlari nisbatiga  
#4 O'xshashlik koeffitsiyentining kvadratiga #5 To'g'ri javob yo'q
- Ikkita o'xshash uchburchak uchun noto'g'ri tasdiqni toping:  
#1 Yuzlari nisbati o'xshashlik koeffitsiyentiga teng  
#2 mos medianalari nisbati o'xshashlik koeffitsiyentiga teng  
#3 Mos bissektoralari nisbati o'xshashlik koeffitsiyentiga teng  
#4 Mos balandliklari nisbati o'xshashlik koeffitsiyentiga teng #5 To'g'ri javob yo'q
- Ikkita o'xshash ko'pburchak uchun noto'g'ri tasdiqni ko'rsating:  
#1 Ularning tomonlari soni teng #2 Ularning burchaklari soni teng #3 Mos tomonlari proporsional  
#4 Yuzlarining nisbati o'xshashlik koeffitsiyentiga teng #5 2,3 to'g'ri
- Romb burchaklaridan biri ikkinchisidan 4 marta katta. Rombning burchaklarini toping.  
#1  $128^{\circ}$ ,  $128^{\circ}$ ,  $32^{\circ}$ ,  $32^{\circ}$  #2  $200^{\circ}$ ,  $200^{\circ}$ ,  $50^{\circ}$ ,  $50^{\circ}$  #3  $140^{\circ}$ ,  $140^{\circ}$ ,  $35^{\circ}$ ,  $35^{\circ}$  #4  $136^{\circ}$ ,  $136^{\circ}$ ,  $34^{\circ}$ ,  $34^{\circ}$  #5  $36^{\circ}$ ,  $36^{\circ}$ ,  $144^{\circ}$ ,  $144^{\circ}$
- Teng yonli uchburchakning yon tomoni 5 m ga teng. Shu uchburchakning asosida olingan nuqtadan uning yon tomonlariga parallel ikkita to'g'ri chiziq o'tkazilgan. Hosil qilingan parallelogramning perimetrini toping.  
#1 10 m #2 15 m #3 8 m #4 12 m #5 7 m
- Parallelogramm diagonallarining kesishish nuqtasidan uning ikkita uchigacha bo'lgan masofalar 3 sm va 4 sm ga teng. Undan qolgan ikkita uchigacha bo'lgan masofalar yig'indisi qanchaga teng?  
#1 10 sm #2 15 sm #3 8 sm #4 12 sm #5 7 sm
- Parallelogramm deb qanday shaklga aytiladi?  
#1 To'rtta burchakka ega bo'lgan shakl #2 To'rtta nuqta va bu nuqtalarni ketma-ket tutashtiruvchi to'rtta kesmadan tashkil topgan shakl #3 Qarama-qarshi tomonlari parallel to'g'ri chiziqlarda yotgan to'rtburchak #4 To'rttala tomonii ham teng bo'lgan shakl #5 To'rttala burchagi ham tomoni ham teng bo'lgan shakl
- To'g'ri to'rtburchakning eni 5 ga teng, bo'yi undan 7 ga ortiq. Shu to'g'ri to'rtburchakning perimetrini toping.  
#1 34 #2 32 #3 24 #4 26 #5 30
- To'g'ri to'rtburchakning perimetri 32 ga, qo'shni tomonlarining ayirmasi 2 ga teng. Uning tomonlarini toping.  
#1 8 va 6 #2 12 va 10 #3 9 va 7 #4 9 va 7 #5 11 va 9
- Rombning diagonali tomoni bilan  $25^{\circ}$  li burchak tashkil qiladi. Rombning katta burchagini toping.  
#1  $130^{\circ}$  #2  $150^{\circ}$  #3  $165^{\circ}$  #4  $120^{\circ}$  #5  $115^{\circ}$
- Romb diagonallarining tomonlari bilan hosil qilingan burchaklari kattaliklarining nisbati 2:7 ga teng. Rombning kichik burchagini toping.  
#1  $20^{\circ}$  #2  $40^{\circ}$  #3  $30^{\circ}$  #4  $60^{\circ}$  #5  $70^{\circ}$
- To'g'ri mulohazani ko'rsating: 1) Oq simmetriyasida ikkita mos kesmalar parallel. 2) Markaziy simmetriyada ikkita mos nurlar yo'nalishdosh. 3) Ixtiyoriy beshburchak simmetriya markaziga ega.  
#1 1,2 #2 1,3 #3 2,3 #4 3 #5 1
- Teng yonli trapetsiya deb qanday trapetsiyaga aytiladi?  
#1 To'rtta burchakka ega bo'lgan trapetsiya #2 To'rtta nuqta va bu nuqtalarni ketma-ket tutashtiruvchi to'rtta kesmadan tashkil topgan shakl #3 Qarama-qarshi tomonlari parallel to'g'ri chiziqlarda yotgan trapetsiya #4 To'rttala tomonii ham teng bo'lgan trapetsiya #5 Yon tomonlari teng bo'lgan trapetsiyaga
- ABCD parallelogram diagonallarining kesishish nuqtasi orqali to'g'ri chiziq o'tkazilgan. Bu to'g'ri chiziq BC va AD tomonlardan  $BE=2$  m va  $AF=2$  m 8 m kesmalarni ajratadi. BC va AD tomonlar yig'indisini toping.  
#1 4,6 m #2 4,8 m #3 9,6 m #4 5,6 m #5 8,2 m
- ABCD parallelogramda  $AB=10$  sm,  $BC=15$  sm, AD va CD tomonlar ko'paytmasi nimaga teng?  
#1 130 sm #2 250 sm #3 150 sm #4 320 sm #5 270 sm
- ABCD parallelogramda  $\angle A=30^{\circ}$ . Qolgan burchaklardan kattasini toping.  
#1  $30^{\circ}$  #2  $40^{\circ}$  #3  $50^{\circ}$  #4  $180^{\circ}$  #5  $150^{\circ}$
- Parallelogramm burchaklaridan biri  $66^{\circ}$ . Qolgan burchaklaridan kichigini toping.  
#1  $30^{\circ}$  #2  $114^{\circ}$  #3  $50^{\circ}$  #4  $66^{\circ}$  #5  $150^{\circ}$
- Rombning tomonlaridan biri bilan uning diagonallari hosil qiladigan burchaklari nisbati 4:5 ga teng. Rombning burchaklarini toping
- Romb diagonallaridan biri uning tomoniga teng. Rombning burchaklarini toping.
- Tomoni 1 m ga teng kvadrat berilgan, bu kvadratning diagonali ikkinchi kvadratning tomoniga teng. Ikkinchi kvadratning diagonalini toping.
- Uchburchakning tomonlari 8 sm, 10 sm, 12 sm ga teng. Uchlari shu uchburchak tomonlarining o'rtalarida yotgan uchburchak eng kichik tomonini toping.
- ABC uchburchakning AB va AC tomonlari o'rtalari mos ravishda E va F nuqtalar bo'lsin. Agar AEF uchburchak yuzi  $3 \text{ sm}^2$  bo'lsa, ABC uchburchak yuzini toping.
- Yuzlari  $8 \text{ sm}^2$  va  $32 \text{ sm}^2$  bo'lgan ikkita o'xshash uchburchak perimetrlarining yig'indisi 48 sm 4at eng. Uchburchaklarning kattasini perimetrini toping.
- Ikki qo'shni burchakning ayirmasi  $24^{\circ}$  bo'lsa, ulardan kattasini toping

## Geometriya.IX-sinf.II-chorak test.A-variant

1. Agar  $F$  va  $F^*$  shakllar uchun,  $F$  shaklning har bir nuqtasiga  $F^*$  shaklning biror nuqtasi mos qo'yilgan bo'lsa va bunda  $F^*$  shaklning har bir nuqtasiga  $F$  shaklning faqat bitta nuqtasi mos kelsa,  $F$  shakl  $F^*$  shaklga ... deyiladi.  
#1 mos qo'yilgan #2 simmetrik #3 almashtirilgan #4 gomotetik #5 o'xshash
2. Eni 4 sm bo'yi 6 sm bo'lgan to'g'ri to'rtburchakka o'xshash, o'xshashlik koeffitsienti 2 ga teng bo'lgan to'g'ri to'rtburchak perimetrini toping.  
#1 60sm #2 8 sm #3 40 sm #4 20 sm #5 12 sm
3. Eni 4 sm bo'yi 6 sm bo'lgan to'g'ri to'rtburchakka o'xshash, o'xshashlik koeffitsienti 3 ga teng bo'lgan to'g'ri to'rtburchak perimetrini toping.  
#1 60sm #2 8 sm #3 40 sm #4 20 sm #5 12 sm
4. Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 4 sm bo'lgan obyektlar orasidagi masofani toping.  
#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km
5. ABC uchburchak o'xshashlik almashtirishida  $A_1B_1C_1$  uchburchakka almashadi. O'xshashlik koeffitsienti 0,4 ga va ABC uchburchak perimetri 16 sm ga teng bo'lsa,  $A_1B_1C_1$  uchburchak perimetrini toping.  
#1 4,8 sm #2 5,6 sm #3 6,4 sm #4 7,2 sm #5 8 sm
6. Yuzlari  $7\text{ m}^2$  va  $28\text{ m}^2$  bo'lgan ikkita to'rtburchak o'xshash. O'xshashlik koeffitsientini toping.  
#1 9m #2 4 m #3 49 m #4 25 m #5 16 m
7. Yuzlari  $9\text{ m}^2$  va  $27\text{ m}^2$  bo'lgan ikkita to'rtburchak o'xshash. O'xshashlik koeffitsientini toping.  
#1 9m #2 4 m #3 49 m #4 25 m #5 16 m
8. Yuzlari  $16\text{ sm}^2$  va  $32\text{ sm}^2$  bo'lgan ikkita o'xshash uchburchak perimetrlarining yig'indisi 50 sm ga teng Uchburchak perimetrlari kichigini toping.  
#1 45 sm #2 64 sm #3 4 sm #4 10 sm #5 40 sm
9. Uchburchak medianalari uchun noto'g'ri tasdiqni ko'rsating:  
#1 Bir nuqtada kesishadi #2 Kesishish nuqtasida 2:1 nisbatda bo'linadi #3 Bir-biriga teng  
#4 Har biri uchburchakni ikkita tengdosh qismga ajratadi #5 2,3 to'g'ri
10. Koeffitsienti  $k=3$  bo'lgan gomotetiyada  $F$  ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi  $4,5\text{ sm}^2$  bo'lsa,  $F$  ko'pburchakning perimetrini toping.  
#1 46 sm #2 36 sm #3 24 sm #4 56 sm #5 24 sm
11. Koeffitsienti  $k=4$  bo'lgan gomotetiyada  $F$  ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi  $4,5\text{ sm}^2$  bo'lsa,  $F$  ko'pburchakning perimetrini toping.  
#1 48 sm #2 36 sm #3 24 sm #4 56 sm #5 24 sm
12. Agar  $90^\circ < a < 180^\circ$  bo'lsa, quyidagilardan qaysi biri musbat?  
#1  $\sin a$  #2  $\cos a$  #3  $\text{tga}$  #4  $\text{ctga}$  #5 Hammasi to'g'ri
13.  $\sin a = 1$  bo'lgan  $a$  o'tkir burchakni toping. #1  $30^\circ$  #2  $45^\circ$  #3  $90^\circ$  #4  $60^\circ$  #5  $180^\circ$
14.  $\cos a = 1$  bo'lsa,  $a$  o'tkir burchakni toping. #1  $0^\circ$  #2  $45^\circ$  #3  $90^\circ$  #4  $60^\circ$  #5  $180^\circ$
15.  $\text{tga} = \frac{\sqrt{3}}{3}$  bo'lsa,  $a$  o'tkir burchakni toping. #1  $30^\circ$  #2  $45^\circ$  #3  $90^\circ$  #4  $60^\circ$  #5  $180^\circ$
16.  $\text{ctga} = \frac{\sqrt{3}}{3}$  bo'lsa,  $a$  o'tkir burchakni toping. #1  $30^\circ$  #2  $45^\circ$  #3  $90^\circ$  #4  $60^\circ$  #5  $180^\circ$
17. Agar  $\sin a = \frac{7}{9}$  bo'lsa,  $\sin(180^\circ - a)$  ni toping. #1  $\frac{9}{7}$  #2 4,1 #3 1 #4 0,71 #5  $\frac{7}{9}$
18.  $\sin 45^\circ$  ni toping. #1  $\frac{1}{2}$  #2  $\frac{\sqrt{2}}{2}$  #3  $\frac{\sqrt{3}}{2}$  #4 1 #5 0
19.  $\text{tg } 135^\circ$  ni toping. .
20.  $\cos 60^\circ$  ni toping.
21. Ifodani soddalashtiring.  $(1 - \sin a)(1 + \sin a)$
22.  $\sin a = 0,8$  bo'lsa,  $\cos a$  ni toping.
23.  $\sin a = 0,8$ ,  $\text{tga} = 4$  bo'lsa,  $\text{ctga}$  ni toping.
24.  $\cos^2 a = 0,25$  bo'lsa,  $\text{ctga}$  ni toping.
25.  $a = 11$ ,  $c = 19$  (a katet c gipotenuza)  $\sin \alpha$  ni toping

## Geometriya.IX-sinf.II-chorak test.B-variant

1. Agar F shaklni F\* shaklga almashtirishda nuqtalar orasidagi masofalar bir xil son marta o'zgarsa, bunday almashtirishga ... deyiladi.  
#1 o'xshashlik almashtirishi #2 gomotetik almashtirish #3 simmetrik almashtirishi #4 Hammasi to'g'ri #5 TJY
2. Eni 4 sm bo'yi 6 sm bo'lgan to'g'ri to'rtburchakka o'xshash, o'xshashlik koeffitsienti 2 ga teng bo'lgan to'g'ri to'rtburchak enini bo'yiga qo'shing  
#1 60sm #2 8 sm #3 40 sm #4 20 sm #5 12 sm
3. Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 10 sm bo'lgan obyektlar orasidagi masofani toping.  
#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km
4. Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 5 sm bo'lgan obyektlar orasidagi masofani toping.  
#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km
5. ABC uchburchak o'xshashlik almashtirishida  $A_1B_1C_1$  uchburchakka almashadi. O'xshashlik koeffitsienti 0,4 ga va ABC uchburchak perimetri 18 sm ga teng bo'lsa,  $A_1B_1C_1$  uchburchak perimetrini toping.  
#1 4,8 sm #2 5,6 sm #3 6,4 sm #4 7,2 sm #5 8 sm
6. Yuzlari 13 m<sup>2</sup> va 65 m<sup>2</sup> bo'lgan ikkita to'rtburchak o'xshash. O'xshashlik koeffitsientini toping.  
#1 9m #2 4 m #3 49 m #4 25 m #5 16 m
7. Yuzlari 8sm<sup>2</sup> va 32sm<sup>2</sup> bo'lgan ikkita o'xshash uchburchak perimetrlarining yig'indisi 51 sm ga teng Uchburchak perimetrlari musbat ayirmasini toping.  
#1 45 sm #2 64 sm #3 4 sm #4 10 sm #5 40 sm
8. Yuzlari 16 sm<sup>2</sup> va 32sm<sup>2</sup> bo'lgan ikkita o'xshash uchburchak perimetrlarining yig'indisi 50 sm ga teng Uchburchak perimetrlari kattasini toping.  
#1 45 sm #2 64 sm #3 4 sm #4 10 sm #5 40 sm
- 9.Uchburchak bissektrisalari uchun noto'g'ri tasdiqni ko'rsating:  
#1 Bir nuqtada kesishadi #2 Kesishish nuqtasida 2:1 nisbatda bo'linadi#3 Ozi tushgan tomonni qolgan ikki tomonga proporsional kesmalarga ajratadi#4 O'zi chiqqan uchdagi burchakni teng ikkiga bo'ladi  
#5 3,4 to'g'ri
10. Koeffitsienti k=3 bo'lgan gomotetiyada F ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi 4,5 sm<sup>2</sup> bo'lsa, F ko'pburchakning yuzini toping.  
#1 46,5 sm<sup>2</sup> #2 36 sm<sup>2</sup> #3 24 sm<sup>2</sup> #4 40,5 sm<sup>2</sup> #5 24 sm<sup>2</sup>
11. Koeffitsienti k=4 bo'lgan gomotetiyada F ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi 4,5 sm<sup>2</sup> bo'lsa, F ko'pburchakning yuzini toping.  
#1 46,5 sm<sup>2</sup> #2 72 sm<sup>2</sup> #3 24 sm<sup>2</sup> #4 40,5 sm<sup>2</sup> #5 24 sm<sup>2</sup>
12. To'g'ri tenglikni toping:  
#1  $\sin^2 a = \pm 1 + \cos^2 a$  #2  $\operatorname{tg}^2 a = 1 + \cos^2 a$  #3  $\frac{1}{\cos^2 a} = 1 + \operatorname{tg}^2 a$  #4  $\sin^2 a \cdot \cos^2 a = 1$  #5 2
13.  $\sin a = 0$  bo'lgan a o'tkir burchakni toping. #1 30° #2 45° #3 90° #4 60° #5 180°
14.  $\cos a = 0$  bo'lsa, a o'tkir burchakni toping. #1 30° #2 45° #3 90° #4 60° #5 180°
15.  $\operatorname{tga} = \sqrt{3}$  bo'lsa, a o'tkir burchakni toping. #1 30° #2 45° #3 90° #4 60° #5 180°
16.  $\operatorname{ctga} = \sqrt{3}$  bo'lsa, a o'tkir burchakni toping.  
#1 30° #2 45° #3 90° #4 60° #5 180°
17. a=11, c=19 (a katet c gipotenuza)  $\cos \alpha$  ni toping  
#1  $\frac{19}{11}$  #2 1 #3 2,3 #4  $\frac{11}{19}$  #5  $4\sqrt{15}$
18. Agar  $\cos a = \frac{7}{9}$  bo'lsa,  $\cos(180^\circ - a)$  ni toping.  
#1  $\frac{9}{7}$  #2 4,1 #3 1 #4 0,71 #5  $-\frac{7}{9}$
19.  $\cos 45^\circ$  ni toping.
20.  $\operatorname{ctg} 135^\circ$  ni toping. .
21.  $\operatorname{tga} = *$  \* ni toping
22.  $\sin^2 a + \cos^2 a = *$  \* ni toping.
23.  $\sin a = 0,6$  bo'lsa, tga ni toping.
24.  $\sin a = 0,8$ , tga=4 bo'lsa, cosa ni toping.
25.  $\cos^2 a = 0,25$  bo'lsa,  $\sin^2 a$  ni toping.

## Geometriya.IX-sinf.II-chorak test.C-variant

- Agar  $F$  va  $F^*$  shakllar berilgan bo'lib, bu shakllarni birini ikkinchisiga o'tkazadigan o'xshashlik almashtirishi mavjud bo'lsa,  $F$  va  $F^*$  shakllar o'zaro ... deyiladi.  
#1 mos qo'yilgan #2 simmetrik #3 almashtirilgan #4 gomotetik #5 o'xshash
- Eni 4 sm bo'yi 6 sm bo'lgan to'g'ri to'rtburchakka o'xshash, o'xshashlik koeffitsienti 2 ga teng bo'lgan to'g'ri to'rtburchak bo'yini toping.  
#1 60sm #2 8 sm #3 40 sm #4 20 sm #5 12 sm
- Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 2 sm bo'lgan obyektlar orasidagi masofani toping.  
#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km
- ABC uchburchak o'xshashlik almashtirishida  $A_1B_1C_1$  uchburchakka almashadi. O'xshashlik koeffitsienti 0,4 ga va ABC uchburchak perimetri 12 sm ga teng bo'lsa,  $A_1B_1C_1$  uchburchak perimetrini toping.  
#1 4,8 sm #2 5,6 sm #3 6,4 sm #4 7,2 sm #5 8 sm
- ABC uchburchak o'xshashlik almashtirishida  $A_1B_1C_1$  uchburchakka almashadi. O'xshashlik koeffitsienti 0,4 ga va ABC uchburchak perimetri 20 sm ga teng bo'lsa,  $A_1B_1C_1$  uchburchak perimetrini toping.  
#1 4,8 sm #2 5,6 sm #3 6,4 sm #4 7,2 sm #5 8 sm
- Yuzlari 5 m<sup>2</sup> va 35 m<sup>2</sup> bo'lgan ikkita to'rtburchak o'xshash. O'xshashlik koeffitsientini toping.  
#1 9m #2 4 m #3 49 m #4 25 m #5 16 m
- Yuzlari 8sm<sup>2</sup> va 32sm<sup>2</sup> bo'lgan ikkita o'xshash uchburchak perimetrlarining yig'indisi 34 sm ga teng Uchburchak perimetrlari ko'paytmasini toping.  
#1 45 sm #2 64 sm #3 4 sm #4 10 sm #5 40 sm
- Ikkita o'xshash uchburchak uchun noto'g'ri tasdiqni toping:  
#1 Yuzlari nisbati o'xshashlik koeffitsiyentiga teng#2 Mos medianalari nisbati o'xshashlik koeffitsiyentiga teng  
#3 Mos bissektoralari nisbati o'xshashlik koeffitsiyentiga teng#4 Mos balandliklari nisbati o'xshashlik koeffitsiyentiga teng#5 To'g'ri javob yo'q
- Ikkita o'xshash ko'pburchak uchun noto'g'ri tasdiqni ko'rsating:  
#1 Ularning tomonlari soni teng#2 Ularning burchaklari soni teng#3 Mos tomonlari proporsional  
#4 Yuzlarining nisbati o'xshashlik koeffitsiyentiga teng#5 2,3 to'g'ri
- Koeffitsienti  $k=2$  bo'lgan gomotetiya  $F$  ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi 4,5 sm<sup>2</sup> bo'lsa,  $F$  ko'pburchakning perimetrini toping.  
#1 46 sm #2 36 sm #3 24 sm #4 56 sm #5 24 sm
- Koeffitsienti  $k=5$  bo'lgan gomotetiya  $F$  ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi 4,5 sm<sup>2</sup> bo'lsa,  $F$  ko'pburchakning perimetrini toping.  
#1 46 sm #2 36 sm #3 24 sm #4 60 sm #5 24 sm
- $\sin a = 1/2$  bo'lgan  $a$  o'tkir burchakni toping.  
#1 30° #2 45° #3 90° #4 60° #5 180°
- $\cos a = 1/2$  bo'lsa,  $a$  o'tkir burchakni toping.  
#1 30° #2 45° #3 90° #4 60° #5 180°
- $\tan a = 1$  bo'lsa,  $a$  o'tkir burchakni toping.  
#1 30° #2 45° #3 90° #4 60° #5 180°
- $\cot a = 1$  bo'lsa,  $a$  o'tkir burchakni toping.  
#1 30° #2 45° #3 90° #4 60° #5 180°
- $\sin 60^\circ$  nimaga teng?  
#1  $\frac{1}{2}$  #2  $\frac{\sqrt{2}}{2}$  #3  $\frac{\sqrt{3}}{2}$  #4 1 #5 0
- $a=11, c=19$  (a katet c gipotenuza)  $\tan \alpha$  ni toping  
#1  $\frac{11\sqrt{5}}{20}$  #2 1 #3  $\frac{4\sqrt{15}}{11}$  #4  $\frac{11}{19}$  #5  $2\frac{3}{19}$
- Agar  $\tan a = 0,71$  bo'lsa,  $\tan(180^\circ - a)$  ni toping.  
#1  $\frac{9}{7}$  #2 4,1 #3 1 #4 -0,71 #5  $\frac{7}{9}$
- $\sin 150^\circ$  ni toping.
- $\sin 135^\circ$  ni toping.
- $\cot a = *$  \* ni toping.
- $\tan a \cdot \cot a = *$  \*ni toping.
- $\sin a = 0,6$  bo'lsa,  $\cot a$  ni toping.
- $\cos^2 a = 0,25$  bo'lsa,  $\tan a$  ni toping.
- To'g'ri burchakli uchburchakning bir burchagi 60° ga, katta kateti esa 6 ga teng. Uning gipotenuzasini toping.

## Geometriya.IX-sinf.II chorak testi. D-variant

1. Noto'g'ri javobni belgilang: O'xshashlik almashtirishi

#1 to'g'ri chiziqni to'g'ri chiziqqa #2 nurni nurga #3 burchakni (uning kattaligini saqlagan holda) burchakka #4 kesmani (uzunligi bu kesmadan k marta uzun bo'lgan) kesmaga #5 tekislikni 2ta to'g'ri chiziqqa o'tkazadi.

2. Eni 4 sm bo'yi 6 sm bo'lgan to'g'ri to'rtburchakka o'xshash, o'xshashlik koeffitsienti 2 ga teng bo'lgan to'g'ri to'rtburchak enini toping.

#1 60sm #2 8 sm #3 40 sm #4 20 sm #5 12 sm

3. Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 3 sm bo'lgan obyektlar orasidagi masofani toping.

#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km

4. ABC uchburchak o'xshashlik almashtirishida  $A_1B_1C_1$  uchburchakka almashadi. O'xshashlik koeffitsienti 0,4 ga va ABC uchburchak perimetri 14 sm ga teng bo'lsa,  $A_1B_1C_1$  uchburchak perimetrini toping.

#1 4,8 sm #2 5,6 sm #3 6,4 sm #4 7,2 sm #5 8 sm

5. ABC uchburchak o'xshashlik almashtirishida  $A_1B_1C_1$  uchburchakka almashadi. O'xshashlik koeffitsienti 0,6 ga va ABC uchburchak perimetri 12 sm ga teng bo'lsa,  $A_1B_1C_1$  uchburchak perimetrini toping.

#1 4,8 sm #2 5,6 sm #3 6,4 sm #4 7,2 sm #5 8 sm

6. Yuzlari  $6\text{ m}^2$  va  $12\text{ m}^2$  bo'lgan ikkita to'rtburchak o'xshash. O'xshashlik koeffitsientini toping.

#1 9m #2 4 m #3 49 m #4 25 m #5 16 m

7. Yuzlari  $16\text{sm}^2$  va  $32\text{sm}^2$  bo'lgan ikkita o'xshash uchburchak perimetrlarining yig'indisi 25 sm ga teng Uchburchak perimetrlari bo'linmasini toping.

#1 45 sm #2 64 sm #3 4 sm #4 10 sm #5 40 sm

8. Ikkita gomotetik ko'pburchak uchun to'g'ri tasdiqni toping:

#1 Ular teng #2 Ular o'xshash #3 Ular tengdosh #4 To'g'ri javob yo'q #5 1,2 to'g'ri

9. Ikkita o'xshash ko'pburchak uchun noto'g'ri tasdiqni ko'rsating:

#1 Perimetrlari nisbati tomonlari nisbatiga teng #2 Yuzlari nisbati tomonlari nisbatining kvadratiga teng

#3 Yuzlarining nisbati o'xshashlik koeffitsiyentining kvadratiga teng #4 Perimetrlar nisbati o'xshashlik koeffitsiyentining kvadratiga teng #5 1,4 to'g'ri

10. Koeffitsienti  $k=3$  bo'lgan gomotetiyada F ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi  $4,5\text{ sm}^2$  bo'lsa, F ko'pburchakning yuzini toping.

#1  $46,5\text{ sm}^2$  #2  $36\text{ sm}^2$  #3  $24\text{ sm}^2$  #4  $40,5\text{ sm}^2$  #5  $18\text{ sm}^2$

11. Noto'g'ri formulani toping:

#1  $\sin(90^\circ-a)=\cos a$  #2  $\cos(90^\circ-a)=\sin a$  #3  $\sin(180^\circ-a)=\sin a$  #4  $\cos(180^\circ-a)=\cos a$  #5 TJY

12.  $\sin a = \frac{\sqrt{3}}{2}$  bo'lgan a o'tkir burchakni toping. #1  $30^\circ$  #2  $45^\circ$  #3  $90^\circ$  #4  $60^\circ$  #5  $180^\circ$

13.  $\cos a = \frac{\sqrt{3}}{2}$  bo'lsa, a o'tkir burchakni toping.

#1  $30^\circ$  #2  $45^\circ$  #3  $90^\circ$  #4  $60^\circ$  #5  $180^\circ$

14.  $\operatorname{tga} a = 0$  bo'lsa, a o'tkir burchakni toping.

#1  $30^\circ$  #2  $45^\circ$  #3  $90^\circ$  #4  $60^\circ$  #5  $180^\circ$

15.  $\operatorname{ctga} a = 0$  bo'lsa, a o'tkir burchakni toping.

#1  $30^\circ$  #2  $45^\circ$  #3  $90^\circ$  #4  $60^\circ$  #5  $180^\circ$

16.  $\operatorname{tg} 60^\circ$  ni toping.

#1  $\sqrt{3}$  #2 1 #3  $\sqrt{2}$  #4  $\frac{\sqrt{2}}{2}$  #5 -1

17.  $a=11, c=19$  (a katet c gipotenuza)  $\operatorname{ctg} \alpha$  ni toping

#1  $\frac{11\sqrt{5}}{20}$  #2 1 #3  $\frac{4\sqrt{15}}{11}$  #4  $\frac{11}{19}$  #5  $2\frac{3}{19}$

18. Agar  $\operatorname{ctga} = 4,1$  bo'lsa,  $\operatorname{ctg}(180^\circ-a)$  ni toping.

#1  $\frac{9}{7}$  #2 -4,1 #3 1 #4 0,71 #5  $\frac{7}{9}$

19.  $\cos 150^\circ$  ni toping.

20.  $\cos 135^\circ$  ni toping.

21.  $\operatorname{tg} 30^\circ$  ni toping

22.  $\sin a = 0,6$  bo'lsa,  $\cos a$  ni toping.

23.  $\cos a = \frac{\sqrt{3}}{2}$  bo'lsa,  $\sin a$  ni toping.

24.  $\cos 90^\circ$  ni toping.

25. To'g'ri burchakli uchburchakning bir burchagi  $60^\circ$  ga, katta kateti esa 6 ga teng. Uning kichik katetini toping.



## Geometriya.IX-sinf.III-chorak test.A-variant

1.  $\vec{a}(2; -3)$   $\vec{b}(4; -6)$  vektorlarni skalyar ko'paytiring.

#1 26 #2 -10 #3 34 #4 -2 #5 7

2.  $\vec{a}(2; -2)$   $\vec{b}(4; \frac{1}{2})$  vektorlarni skalyar ko'paytiring.

#1 26 #2 -10 #3 34 #4 -2 #5 7

3.  $\vec{a}(3; 3)$  vektorning modulini toping.

#1 5 #2 10 #3  $\sqrt{41}$  #4  $3\sqrt{2}$  #5 2

4.  $\vec{a}(2; -3)$   $\vec{b}(4; -6)$  vektorlar orasidagi burchak kosinusini toping.

#1 0 #2  $-\frac{2}{5\sqrt{5}}$  #3  $1\frac{1}{13}$  #4  $\frac{34}{\sqrt{13}}$  #5  $\frac{7}{\sqrt{130}}$

5. ABC uchburchakda  $AB=6$  sm,  $\angle A=60^\circ$ ,  $\angle B=75^\circ$ . ABC uchburchakka tshqi chizilgan aylananing radiusini toping.

#1  $\sqrt{2}$  #2  $3\sqrt{2}$  #3 5 #4  $5\sqrt{2}$  #5 10

6. ABC uchburchakda  $\angle B=60^\circ$ ,  $AB=6$  sm,  $BC=4$  sm. AC tomonni toping.

#1 5 #2  $2\sqrt{7}$  #3 4 #4  $\frac{2\sqrt{21}}{3}$  #5 12

7. Parallelogrammning diagonallari 4 sm,  $4\sqrt{2}$  sm va ular orasidagi burchak  $45^\circ$ . Parallelogrammning yuzini toping.

#1  $8$  sm<sup>2</sup> #2  $9$  sm<sup>2</sup> #3  $56$  sm<sup>2</sup> #4  $67$  sm<sup>2</sup> #5  $89$  sm<sup>2</sup>

8. Tomonlari 3 va 5 bo'lgan parallelogrammning bir diagonali 4 ga teng. Ikkinchi diagonalni toping.

#1 5 #2  $2\sqrt{13}$  #3 4 #4  $\frac{2\sqrt{21}}{3}$  #5 12

9. Parallelogrammning tomonlari  $7\sqrt{3}$  va 6 sm. Agar uning o'tmas burchagi  $120^\circ$  bo'lsa, uning yuzini toping.

#1  $34$  sm<sup>2</sup> #2  $56$  sm<sup>2</sup> #3  $65$  sm<sup>2</sup> #4  $78$  sm<sup>2</sup> #5  $63$  sm<sup>2</sup>

10. Tomonlari  $a$ ,  $b$ ,  $c$  mos burchaklari  $\alpha$ ,  $\beta$ ,  $\gamma$  yuzi  $S$  bo'lgan uchburchak uchun qaysi formula noto'g'ri?

#1  $a^2=b^2+c^2-2bc\cos\alpha$  #2  $\frac{a}{\sin\alpha} = \frac{b}{\sin\beta} = \frac{c}{\sin\gamma}$  #3  $S = \frac{1}{2}ab\sin\gamma$  #4  $S = \frac{1}{2}ab\sin\alpha$  #5  $S = \frac{1}{2}bc\sin\alpha$

11. Tomonlari  $a, b, c$  bo'lgan uchburchakning  $m_a$  medianasini quyidagi formulalardan qaysi biri yordamida hisoblash mumkin?

#1  $m_a = \frac{1}{2}\sqrt{2b^2 - 2c^2 + a^2}$  #2  $m_a = \frac{1}{2}\sqrt{2b^2 + 2c^2 - a^2}$  #3  $m_a = \frac{1}{2}\sqrt{2b^2 + 2c^2 + a^2}$

#4  $m_a = \frac{1}{2}\sqrt{2b^2 + 2c^2 + 2a^2}$  #5 TJY

12. Noto'g'ri tasdiqni toping.

#1 Aylana yoyining uzunligi unig gradus o'lchoviga proporsional #2 Doira sektorining yuzi sektorning gradus o'lchoviga proporsional #3 Doira yuzi radiusning kvadratiga proporsional #4 Segmentning yuzi uning yoyiga proporsional #5 TJY

13. Agar  $A, B$  va  $C$  lar uchburchakning burchaklari bolsa,  $\sin \frac{A+B}{2}$  --- nimaga teng?

#1  $\sin \frac{C}{2}$  #2  $\cos \frac{C}{2}$  #3  $-\sin \frac{C}{2}$  #4  $\sin C$  #5  $\cos C$

14. Muntazam ko'pburchakning tashqi burchagi  $36^\circ$  ga teng bo'lsa, bu muntazam ko'pburchakning tomonlari nechta?

#1 10 #2 11 #3 9 #4 12 #5 8

15. Noto'g'risini toping. Istalgan doira yuzining uning radiusiga nisbati.

#1 radiusga teng #2 radiusga proporsional #3 diametrga proporsional #4 o'zgarmas son #5 TJY

16.  $\frac{\pi}{2}$  ni gradusda ifodalang.

#1  $45^\circ$  #2  $60^\circ$  #3  $120^\circ$  #4  $180^\circ$  #5  $90^\circ$

17. Radiusi 5smga teng bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

#1  $28,26$  sm<sup>2</sup> #2  $50,24$  sm<sup>2</sup> #3  $314$  sm<sup>2</sup> #4  $78,5$  sm<sup>2</sup> #5  $200,96$  sm<sup>2</sup>

18. Diametri 16 sm bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

#1  $1962,5$  sm<sup>2</sup> #2  $7850$  sm<sup>2</sup> #3  $200,96$  sm<sup>2</sup> #4  $12,56$  sm<sup>2</sup> #5  $78,5$  sm<sup>2</sup>

19. Tomoni 4 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.

20. Tomoni 6 sm ga teng bo'lgan kvadratga tashqi chizilgan doiraning yuzini toping.

21. Tomoni 2 sm ga teng bo'lgan kvadratga tashqi chizilgan doiraning yuzini toping.

22. Radiusi 10 sm, yoyining gradus o'lchovi  $90^\circ$  bo'lgan sektor yuzini toping.

23. Radiusi 10 sm, yoyining gradus o'lchovi  $60^\circ$  bo'lgan segment yuzini toping.

24.  $60^\circ$  ni radianda ifodalang.

25. Tomonlari 4 sm va 6 sm bo'lgan to'g'ri to'rtburchakka tashqi chizilgan aylana yuzini toping.  $\pi = 3$

## Geometriya.IX-sinf.III-chorak test.B-variant

1.  $\vec{a}(2;3)$   $\vec{b}(4;-6)$  vektorlarni skalyar ko'paytiring.

#1 26 #2 -10 #3 34 #4 -2 #5 7

2.  $\vec{a}(3;4)$  vektorning modulini toping.

#1 5 #2 10 #3  $\sqrt{41}$  #4  $3\sqrt{2}$  #5 2

3.  $\vec{a}(2;0)$  vektorning modulini toping.

#1 5 #2 10 #3  $\sqrt{41}$  #4  $3\sqrt{2}$  #5 2

4.  $\vec{a}(4;-3)$   $\vec{b}(4;-6)$  vektorlar orasidagi burchak kosinusini toping.

#1 0 #2  $-\frac{2}{5\sqrt{5}}$  #3  $1\frac{1}{13}$  #4  $\frac{3,4}{\sqrt{13}}$  #5  $\frac{7}{\sqrt{130}}$

5. Tomonlari 5 sm, 6 sm va 10 sm bo'lgan uchburchak 5 sm li tomoni qarshisidagi burchak kosinusini toping.

#1 0,65 #2 0,89 #3 0,925 #4 0,96 #5 0,66

6. ABC uchburchakda  $\angle B = 60^\circ$ , AB 6 sm, BC=4 sm. ABC uchburchakka tashqi chizilgan aylana radiusini toping.

#1 5 #2  $2\sqrt{7}$  #3 4 #4  $\frac{2\sqrt{21}}{3}$  #5 12

7. Parallelogrammning diagonallari 4 sm,  $4\sqrt{2}$  sm va ular orasidagi burchak  $45^\circ$ . Parallelogrammning perimetrini toping.

#1  $8\sqrt{2}$ sm #2  $6\sqrt{2}$  sm #3  $4+4\sqrt{5}$  sm #4  $5\sqrt{5}$ sm #5  $2+2\sqrt{5}$  sm

8. Tomonlari 2 sm, 2 sm va 2,5 sm bo'lgan uchburchak turini aniqlang.

#1 o'tkir burchakli #2 to'g'ri burchakli #3 o'tmas burchakli #4 teng yonli #5 TJY

9. ABC uchburchakning AB, BC tomonlarida N, K nuqtalar olingan. Unda  $BN=2AN$ ,  $3BK=2KC$ . Agar  $AB=3$ ,  $BC=5$ ,  $CA=6$  bo'lsa, NK kesmani toping.

#1  $\approx 2,7$  sm #2  $\approx 4,7$  sm #3  $\approx 3,7$  sm #4  $\approx 5,6$  sm #5  $\approx 4,3$  sm

10. Noto'g'ri formulani toping.

#1  $\sin^2 a + \cos^2 a = 1$  #2  $\sin(180^\circ - a) = \sin a$  #3  $\cos(180^\circ - a) = \cos a$  #4  $\sin(90^\circ - a) = \cos a$  #5  $\cos(90^\circ - a) = \sin a$

11. To'g'ri javobni aniqlang. Istalgan aylana uzunligining shu aylana diametriga nisbati

#1 aylanaga bog'liq #2 radiusga proporsional #3  $\pi$  gat eng #4 radiusning kvadratiga proporsional #5 TJY

12. To'g'risini toping. Doiraning vatari uni

#1 ikkita segmentga #2 ikkita sektorga #3 ikkita yoyga #4 tengdosh shakllarga #5 ikkita aylanaga ajratadi

13. Muntazam ko'pburchakning tashqi burchagi  $60^\circ$  ga, perimetri 54 ga teng. Uning katta diagonalini toping.

#1 12 #2 16 #3 18 #4 20 #5 10

14. Teng tomonli uchburchakka tashqi chizilgan aylananing radiusi 8 ga teng. Shu uchburchakka ichki chizilgan aylananing radiusini toping.

#1 16 #2 6 #3 10 #4 4 #5 5

15.  $180^\circ$  ni radianda ifodalang.

#1  $\pi$  #2  $\frac{\pi}{2}$  #3  $\frac{\pi}{3}$  #4  $\frac{\pi}{4}$  #5  $\frac{2\pi}{3}$

16. Radiusi 3 sm ga teng bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

#1 28,26 sm<sup>2</sup> #2 50,24 sm<sup>2</sup> #3 314 sm<sup>2</sup> #4 78,5 sm<sup>2</sup> #5 200,96 sm<sup>2</sup>

17. Radiusi 8 sm ga teng bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

#1 28,26 sm<sup>2</sup> #2 50,24 sm<sup>2</sup> #3 314 sm<sup>2</sup> #4 78,5 sm<sup>2</sup> #5 200,96 sm<sup>2</sup>

18. Istalgan muntazam ko'pburchak uchun noto'g'ri tasdiqni toping.

#1 Ichki aylana chizish mumkin #2 Diagonallari teng #3 Tomonlari teng #4 Burchaklari teng #5 TJY

19. Tomoni 8 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.

20. Tomoni 4 sm ga teng bo'lgan kvadratga tashqi chizilgan doiraning yuzini toping.

21. Radiusi 10 sm, yoyining gradus o'lchovi  $30^\circ$  bo'lgan sektor yuzini toping.

22. Radiusi 10 sm, yoyining gradus o'lchovi  $120^\circ$  bo'lgan sektor yuzini toping.

23. Radiusi 10 sm, yoyining gradus o'lchovi  $90^\circ$  bo'lgan segment yuzini toping.

24. Diametri 4 sm bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

25. Tomonlari 4 sm va 6 sm bo'lgan to'g'ri to'rtburchakka tashqi chizilgan aylana radiusini toping.

## Geometriya.IX-sinf.III-chorak test.C-variant

1.  $\vec{a}(4; -3)$   $\vec{b}(4; -6)$  vektorlarni skalyar ko'paytirib.

#1 26 #2 -10 #3 34 #4 -2 #5 7

2.  $\vec{a}(6; 8)$  vektorning modulini toping.

#1 5 #2 10 #3  $\sqrt{41}$  #4  $3\sqrt{2}$  #5 2

3.  $\vec{a}(1; 2)$ ,  $\vec{b}(1; -\frac{1}{2})$  vektorlar orasidagi burchak kosinusini toping.

#1 0 #2  $-\frac{2}{5\sqrt{5}}$  #3  $1\frac{1}{13}$  #4  $\frac{3,4}{\sqrt{13}}$  #5  $\frac{7}{\sqrt{130}}$

4.  $\vec{a}(2; -2)$   $\vec{b}(4; \frac{1}{2})$  vektorlar orasidagi burchak kosinusini toping.

#1 0 #2  $-\frac{2}{5\sqrt{5}}$  #3  $1\frac{1}{13}$  #4  $\frac{3,4}{\sqrt{13}}$  #5  $\frac{7}{\sqrt{130}}$

5. Tomonlari 5 sm, 6 sm va 10 sm bo'lgan uchburchak 6 sm li tomoni qarshisidagi burchak kosinusini toping.

#1 0,65 #2 0,89 #3 0,925 #4 0,96 #5 0,66

6. Tomonlari 51 sm, 52 sm va 53 sm bo'lgan uchburchakka rashqi chizilgan aylananing radiusini toping.

#1 31 sm #2 15 sm #3 35 sm #4 54 sm #5 23 sm

7. Parallelogrammning diagonallari 4 sm,  $4\sqrt{2}$  sm va ular orasidagi burchak  $45^\circ$ . Parallelogrammning 4 smli tomoniga o'tkazilgan balandligini toping.

#1  $0,8\sqrt{5}$  sm #2 4 sm #3 6 sm #4  $0,6\sqrt{5}$  sm #5 8 sm

8. Tomonlari 24 sm, 7 sm va 25 sm bo'lgan uchburchak turini aniqlang.

#1 o'tkir burchakli #2 to'g'ri burchakli #3 o'tmas burchakli #4 teng yonli #5 TJY

9. ABC uchburchakda  $\angle A=30^\circ$ , BC=7 sm. Uchburchakka tashqi chizilgan aylana radiusini toping.

#1 4 sm #2 7 sm #3 5 sm #4 8 sm #5 9 sm

10. Uchburchakning uchta tomoni ma'lum bo'lsa, qaysi teoremdan foydalanib uning burchaklarini topish mumkin?

#1 Sinuslar teoremasi #2 kosinuslar teoremasi #3 Fales teoremasi #4 Geron formulasi #5 Pifagor teoremasi

11. Noto'g'risini toping. Istalgan doira yuzining radiusga nisbati

#1 radiusga teng #2 radiusga proporsional #3 diametrga proporsional #4 o'zgarmas son #5 TJY

12. Uchburchak o'tkir burchakli bo'lishi uchun uning  $\alpha, \beta$  va  $\gamma$  burchaklari orasida qanday munosabatlar o'rinni bolishi kerak?

#1  $\gamma \geq \alpha + \beta$  #2  $\gamma \leq \alpha + \beta$  #3  $\beta < \alpha + \gamma$  #4  $\gamma < \alpha + \beta$  #5  $\alpha < \beta + \gamma$ ,  $\beta < \alpha + \gamma$ ,  $\gamma < \beta + \alpha$

13. Muntazam o'nsakkizburchak ichki burchagi uchlanganining kosinusini toping.

#1  $-\frac{1}{2}$  #2  $\frac{\sqrt{2}}{2}$  #3  $\frac{\sqrt{3}}{2}$  #4 0 #5 1

14. Muntazam ko'pburchakka tashqi chizilgan aylananing radiusini ichki chizilgan aylana radiusiga nisbati  $\frac{\sqrt{3}}{2}$  ga teng bo'lsa,

Bu ko'pburchak tomoni nechta?

#1 4 #2 3 #3 5 #4 6 #5 8

15.  $90^\circ$  ni radianda ifodalang.

#1  $\pi$  #2  $\frac{\pi}{2}$  #3  $\frac{\pi}{3}$  #4  $\frac{\pi}{4}$  #5  $\frac{2\pi}{3}$

16. Radiusi 4 sm ga teng bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

#1 28,26 sm<sup>2</sup> #2 50,24 sm<sup>2</sup> #3 314 sm<sup>2</sup> #4 78,5 sm<sup>2</sup> #5 200,96 sm<sup>2</sup>

17. Diametri 50 sm bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

#1 1962,5 sm<sup>2</sup> #2 7850 sm<sup>2</sup> #3 200,96 sm<sup>2</sup> #4 12,56 sm<sup>2</sup> #5 78,5 sm<sup>2</sup>

18. Noto'g'ri tasdiqni toping.

#1 Aylana yoyining uzunligi uning gradus o'lchoviga proporsional #2 Doira sektorining yuzi sektorning gradus o'lchoviga proporsional #3 Doira yuzi radiusning kvadratiga proporsional #4 Segmentning yuzi uning yoyiga proporsional #5 TJY

19. Tomoni 10 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.

20. Tomoni 8 sm ga teng bo'lgan kvadratga tashqi chizilgan doiraning yuzini toping.

21. Radiusi 10 sm, yoyining gradus o'lchovi  $45^\circ$  bo'lgan sektor yuzini toping.

22. Radiusi 10 sm, yoyining gradus o'lchovi  $30^\circ$  bo'lgan segment yuzini toping.

23. Radiusi 10 sm, yoyining gradus o'lchovi  $120^\circ$  bo'lgan segment yuzini toping.

24. Diametri 10 sm bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

25. Tomonlari 3 sm va 4 sm bo'lgan to'g'ri to'rtburchakka tashqi chizilgan aylana radiusini toping.

## Geometriya.IX-sinf.III chorak testi. D-variant

1.  $\vec{a}(4; -3)$   $\vec{b}(4; 6)$  vektorlarni skalyar ko'paytiring.

#1 26 #2 -10 #3 34 #4 -2 #5 7

2.  $\vec{a}(5; -4)$  vektorning modulini toping.

#1 5 #2 10 #3  $\sqrt{41}$  #4  $3\sqrt{2}$  #5 2

3.  $\vec{a}(1; -2)$   $\vec{b}(4; 3)$  vektorlar orasidagi burchak kosinusini toping.

#1 0 #2  $-\frac{2}{5\sqrt{5}}$  #3  $1\frac{1}{13}$  #4  $\frac{34}{\sqrt{13}}$  #5  $\frac{7}{\sqrt{130}}$

4. ABC uchburchakda  $AB=6$  sm,  $\angle A=60^\circ$ ,  $\angle B=75^\circ$ . BC tomonni toping.

#1 3 #2 2 #3 1 #4 5 #5 8

5. Tomonlari 5 sm, 6 sm va 10 sm bo'lgan uchburchak 10 sm li tomoni qarshisidagi burchak kosinusini toping.

#1 0,65 #2 0,89 #3 0,925 #4 0,96 #5 0,66

6. Uchburchakning ikkita tomoni 7 sm va 11 sm, uchinchi tomoniga o'tkazilgan medianasi esa 6 sm. Uchburchakning uchinchi tomonini toping.

#1 26 sm #2 65 sm #3  $\sqrt{26}$  sm #4  $\sqrt{32}$  sm #5 33 sm

7. Parallelogrammning diagonallari 4 sm,  $4\sqrt{2}$  sm va ular orasidagi burchak  $45^\circ$ . Parallelogrammning  $4\sqrt{2}$  smli tomoniga o'tkazilgan balandligini toping.

#1  $0,8\sqrt{5}$  sm #2 4 sm #3 6 sm #4  $0,6\sqrt{5}$  sm #5 8 sm

8. Tomonlari 9 sm, 5 sm va 6 sm bo'lgan uchburchak turini aniqlang.

#1 o'tkir burchakli #2 to'g'ri burchakli #3 o'tmas burchakli #4 teng yonli #5 TJY

9. ABC uchburchakning BE bissektisasi o'tkazilgan. E nuqtadan BC tomonga EF perpendikulyar tushirilgan. Agar  $EF=3$ ,  $\angle A=30^\circ$  bo'lsa, AE ni toping.

#1 3 #2 2 #3 6 #4 5 #5 8

10. Parallelogramm tomonlarining kvadratlari yig'indisi quyidagilardan qaysi biriga teng?

#1 Diagonallari kvadratlarining yig'indisiga #2 Katta diagonalining kvadratiga #3 Parallelogramm yuziga #4 Parallelogramm perimetriga #5 Diagonallari ko'paytmasiga

11. Istalgan muntazam ko'pburchak uchun noto'g'ri tasdiqni toping.

#1 Ichki aylana chizish mumkin #2 Diagonallari teng #3 Tomonlari teng #4 Burchaklari teng #5 TJY

12. a ning qanday qiymatida istalgan ABC uchburchak uchun  $\cos A + \cos B + \cos C \leq a$  tengsizlik hamisha o'rinli bo'ladi?

#1 1 #2 2 #3  $\frac{3}{2}$  #4  $\frac{5}{2}$  #5 3

13.  $R=2$  bo'lgan aylanaga tashqi chizilgan kvadratning perimetrini toping.

#1 8 #2 16 #3 12 #4 4 #5 24

14.  $45^\circ$  ni radianda ifodalang.

#1  $\pi$  #2  $\frac{\pi}{2}$  #3  $\frac{\pi}{3}$  #4  $\frac{\pi}{4}$  #5  $\frac{2\pi}{3}$

15.  $\frac{2\pi}{3}$  ni gradusda ifodalang.

#1  $45^\circ$  #2  $60^\circ$  #3  $120^\circ$  #4  $180^\circ$  #5  $90^\circ$

16. Radiusi 10 sm ga teng bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

#1  $28,26$  sm<sup>2</sup> #2  $50,24$  sm<sup>2</sup> #3  $314$  sm<sup>2</sup> #4  $78,5$  sm<sup>2</sup> #5  $200,96$  sm<sup>2</sup>

17. To'g'ri javobni toping. Istalgan aylana uzunligining shu aylana diametriga nisbati.

#1 aylanaga bog'liq #2 radiusga proporsional #3  $\pi$  ga teng #4 radiusning kvadratiga proporsional #5 TJY

18. To'g'risini toping. Doiraning vatari uni

#1 ikkita segmentga #2 ikki sektorga #3 ikkita yoyga #4 tengdosh shakllarga ajratadi #5 Hammasi to'g'ri

19. Tomoni 2 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.

20. Tomoni 10 sm ga teng bo'lgan kvadratga tashqi chizilgan doiraning yuzini toping.

21. Radiusi 10 sm, yoyining gradus o'lchovi  $60^\circ$  bo'lgan sektor yuzini toping.

22. Radiusi 10 sm, yoyining gradus o'lchovi  $45^\circ$  bo'lgan segment yuzini toping.

23. Diametri 100 sm bo'lgan doirani yuzini toping. ( $\pi = 3,14$  deb oling)

24. Tomoni 6 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.

25. Tomonlari 3 sm va 4 sm bo'lgan to'g'ri to'rtburchakka tashqi chizilgan aylana yuzini toping.  $\pi = 3$

## Geometriya.IX-sinf.IV-chorak test.A-variant

- To'g'ri burchakli uchburchakning gipotenuzasiga tushirilgan balandligi haqida noto'g'ri tasdiqni ko'rsating.  
#1 Katetlaridan kichik #2 Uchburchakni ikkita o'xshash uchburchaklarga ajratadi #3 Katetlarning gipotenuzadagi proyeksiyalari orasida o'rta proporsional #4 Gipotenuzaning yarmiga teng #5 TJY
- Uzunligi  $a$  va  $b$  bo'lgan kesmalarning o'rta proporsionali nimaga teng?  
#1  $a+b$  #2  $\sqrt{ab}$  #3  $\frac{a+b}{2}$  #4  $a:b$  #5  $a-b$
- Aylananing AB va CD vatarlari E nuqtada kesishadi. Agar  $AE=5$  sm,  $BE=2$  sm va  $EC=2,5$  sm bo'lsa, ED ni toping.  
#1 4 sm #2 8 sm #3 12 sm #4 2 sm #5 6 sm
- Aylananing AB va CD vatarlari E nuqtada kesishadi. Agar  $AE=6$  sm,  $BE=3$  sm va  $EC=3$  sm bo'lsa, ED ni toping.  
#1 4 sm #2 8 sm #3 12 sm #4 2 sm #5 6 sm
- Aylanada A,B,C,D nuqtalar belgilangan, BA va CD nurlar O nuqtada kesishadi. Agar  $OA=8$ ,  $AB=4$ ,  $OD=6$  bo'lsa, DC vatarni toping.  
#1 1,5 #2 10 #3 20,5 #4 7 #5 3
- Aylanaga B nuqtada urinuvchi to'g'ri chiziq ustida A nuqta olindi. Agar  $AB=12$  va A nuqtadan aylanagacha bo'lgan eng qisqa masofa 8 bo'lsa, aylana radiusini toping.  
#1 5 #2 16 #3 2 #4 7,5 #5 10,5
- Aylanaga B nuqtada urinuvchi to'g'ri chiziq ustida A nuqta olindi. Agar  $AB=10$  va A nuqtadan aylanagacha bo'lgan eng qisqa masofa 4 bo'lsa, aylana radiusini toping.  
#1 5 #2 16 #3 2 #4 7,5 #5 10,5
- Yarim aylanadagi C nuqtadan AB diametrga tushirilgan CD perpendikulyar AB kesmada 32 va 2 ga teng kesmalar ajratadi. CD kesmani toping.  
#1 6 #2 7 #3 10 #4 8 #5 9
- To'g'ri burchakli uchburchakning balandligi gipotenuzani 3 dm va 12 dm ga teng kesmalarga bo'ladi. Uchburchak kata katetini toping.  
#1  $3\sqrt{5}$  dm #2  $6\sqrt{5}$  dm #3  $2\sqrt{5}$  dm #4 45 dm #5 12 dm
- Aylana burchakka ichki chizilgan. Agar burchak uchidan aylanagacha bo'lgan masofa radiusga teng bo'lsa, burchak kattaligini toping.  
#1  $30^\circ$  #2  $45^\circ$  #3  $60^\circ$  #4  $90^\circ$  #5  $180^\circ$
- $\vec{a}(2; -3)$   $\vec{b}(4; -6)$  vektorlarni skalyar ko'paytiring.  
#1 26 #2 -10 #3 34 #4 -2 #5 7
- $\vec{a}(2; -2)$   $\vec{b}(4; \frac{1}{2})$  vektorlarni skalyar ko'paytiring.  
#1 26 #2 -10 #3 34 #4 -2 #5 7
- Tomonlari 5 sm, 6 sm va 10 sm bo'lgan uchburchak 6 sm li tomoni qarshisidagi burchak kosinusini toping.  
#1 0,65 #2 0,89 #3 0,925 #4 0,96 #5 0,66
- Istalgan muntazam ko'pburchak uchun noto'g'ri tasdiqni toping.  
#1 Ichki aylana chizish mumkin #2 Diagonallari teng #3 Tomonlari teng #4 Burchaklari teng #5 TJY
- Tomonlari 8 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.  
#1 56,52 sm<sup>2</sup> #2 25,12 sm<sup>2</sup> #3 100,48 sm<sup>2</sup> #4 157 sm<sup>2</sup> #5 6,28 sm<sup>2</sup>
- Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 10 sm bo'lgan obyektlar orasidagi masofani toping.  
#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km
- Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 5 sm bo'lgan obyektlar orasidagi masofani toping.  
#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km
- Koeffitsienti  $k=2$  bo'lgan gomotetiyada F ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi 4,5 sm<sup>2</sup> bo'lsa, F ko'pburchakning perimetrini toping.  
#1 46 sm #2 36 sm #3 24 sm #4 56 sm #5 24 sm
- $\sin a=0$  bo'lgan  $a$  o'tkir burchakni toping.
- $\sin a=0,8$  bo'lsa,  $\cos a$  ni toping.
- $\sin a=0,8$ ,  $\operatorname{tg} a=4$  bo'lsa,  $\operatorname{ctg} a$  ni toping.
- To'rtburchakning uchta burchagi  $56^\circ$ ,  $87^\circ$  va  $134^\circ$  ga tengligi ma'lum. Uning to'rtinchi burchagini toping.
- Romb burchaklaridan biri ikkinchisidan 2 marta katta. Rombning burchaklarini toping.
- Teng yonli to'g'ri burchakli uchburchak ichiga kvadrat shunday chizilganki, uning ikkita uchi gipotenuzada, qolgan ikkita uchi esa katetlarda yotadi. Gipotenuza 3 m gat eng ekani ma'lum bo'lsa, kvadrat tomonini toping.
- Uchburchakning tomonlari 8 sm, 10 sm, 12 sm ga teng. Uchlari shu uchburchak tomonlarining o'rtalarida yotgan uchburchak eng katta tomonini toping.

## Geometriya.IX-sinf.IV-chorak test.B-variant

- AB va CD vatarlar O nuqtada kesishadi. Noto'g'ri tasdiqni toping.  
#1  $\angle DAB = \angle DCB$  #2 AOD va COB uchburchaklar o'xshash #3  $AO \cdot OB = CO \cdot OD$  #4  $AO = CO$  #5 TJY
- ABCD to'rtburchak aylanaga ichki chizilgan. Noto'g'ri tasdiqni toping.  
#1  $\triangle AOB \sim \triangle COD$  #2  $\angle A + \angle C = \angle B + \angle D$  #3  $AO \cdot OB = CO \cdot OD$  #4  $AB \cdot CD = BC \cdot AD$  #5 TJY
- Aylananing AB va CD vatarlari E nuqtada kesishadi. Agar  $AE = 10$  sm,  $BE = 4$  sm va  $EC = 5$  sm bo'lsa, ED ni toping.  
#1 4 sm #2 8 sm #3 12 sm #4 2 sm #5 6 sm
- Radiusi 6 m bo'lgan aylananing markazidan 10 m uzoqlikda K nuqta olindi va K nuqtadan aylanaga urinma o'tkazildi. Urinmaning urinish nuqtasi P bilan K nuqta orasidagi masofani toping.  
#1  $\sqrt{2}$  sm #2  $2\sqrt{10}$  sm #3  $3\sqrt{2}$  sm #4 3 sm #5  $5\sqrt{2}$  sm
- Aylanada A,B,C,D nuqtalar belgilangan, BA va CD nurlar O nuqtada kesishadi. Agar  $OA = 5$ ,  $AB = 4$ ,  $OD = 2$  bo'lsa, DC vatarini toping.  
#1 1,5 #2 10 #3 20,5 #4 7 #5 3
- Aylanaga B nuqtada urinuvchi to'g'ri chiziq ustida A nuqta olindi. Agar  $AB = 12$  va A nuqtadan aylanagacha bo'lgan eng qisqa masofa 4 bo'lsa, aylana radiusini toping.  
#1 5 #2 16 #3 2 #4 7,5 #5 10,5
- Yarim aylanadagi C nuqtadan AB diametrga tushirilgan CD perpendikulyar AB kesmada 4 va 9 ga teng kesmalar ajratadi. CD kesmani toping.  
#1 6 #2 7 #3 10 #4 8 #5 9
- Yarim aylanadagi C nuqtadan AB diametrga tushirilgan CD perpendikulyar AB kesmada 27 va 3 ga teng kesmalar ajratadi. CD kesmani toping.  
#1 6 #2 7 #3 10 #4 8 #5 9
- Radiusi 5 sm bo'lgan O markazli aylananing AB vatarida D nuqta olingan. Agar  $AD = 2$  sm,  $DB = 4,5$  sm bo'lsa, OD kesmani toping.  
#1 1 sm #2 2 sm #3 3 sm #4 4 sm #5 5 sm
- Aylanaga AB diametrga B uchidan BC urinma va AC kesuvchi o'tkazilgan. AC aylana bilan D nuqtada kesishadi. Agar  $AD = DC$  bo'lsa, CBD burchakni toping.  
#1  $30^\circ$  #2  $45^\circ$  #3  $60^\circ$  #4  $90^\circ$  #5  $180^\circ$
- $\vec{a}(2;3)$   $\vec{b}(4;-6)$  vektorlarni skalyar ko'paytirning.  
#1 26 #2 -10 #3 34 #4 -2 #5 7
- ABC uchburchakda  $AB = 6$  sm,  $\angle A = 60^\circ$ ,  $\angle B = 75^\circ$ . BC tomonni toping.  
#1 3 #2 2 #3 1 #4 5 #5 8
- Tomonlari 5 sm, 6 sm va 10 sm bo'lgan uchburchak 10 sm li tomoni qarshisidagi burchak kosinusini toping.  
#1 0,65 #2 0,89 #3 0,925 #4 0,96 #5 0,66
- Noto'g'ri tasdiqni toping.  
#1 Aylana yoyining uzunligi unig gradus o'lchoviga proporsional #2 Doira sektorining yuzi sektorning gradus o'lchoviga proporsional #3 Doira yuzi radiusning kvadratiga proporsional #4 Segmentning yuzi uning yoyiga proporsional #5 TJY
- Tomonlari 10 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.  
#1  $56,52 \text{ sm}^2$  #2  $25,12 \text{ sm}^2$  #3  $100,48 \text{ sm}^2$  #4  $157 \text{ sm}^2$  #5  $6,28 \text{ sm}^2$
- Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 2 sm bo'lgan obyektlar orasidagi masofani toping.  
#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km
- ABC uchburchak o'xshashlik almashirishida  $A_1B_1C_1$  uchburchakka almashadi. O'xshashlik koeffitsienti 0,4 ga va ABC uchburchak perimetri 12 sm ga teng bo'lsa,  $A_1B_1C_1$  uchburchak perimetrini toping.  
#1 4,8 sm #2 5,6 sm #3 6,4 sm #4 7,2 sm #5 8 sm
- Koeffitsienti  $k=3$  bo'lgan gomotetiyada F ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi  $4,5 \text{ sm}^2$  bo'lsa, F ko'pburchakning yuzini toping.  
#1  $46,5 \text{ sm}^2$  #2  $36 \text{ sm}^2$  #3  $24 \text{ sm}^2$  #4  $40,5 \text{ sm}^2$  #5  $18 \text{ sm}^2$
- $\cos \alpha = 1/2$  bo'lsa,  $\alpha$  o'tkir burchakni toping.
- $\sin \alpha = 0,6$  bo'lsa,  $\alpha$  ni toping.
- Parallelogramning ikki burchagi yig'indisi  $144^\circ$  ga teng. Uning burchaklarini toping.
- To'rtburchakning uchta burchagi  $126^\circ$ ,  $27^\circ$  va  $104^\circ$  ga tengligi ma'lum. Uning to'rtinchi burchagini toping.
- Uchlari bir to'g'ri chiziqda yotmagan, berilgan uchta nuqtadan iborat nechta parallelogram yasash mumkin?
- Uchburchakning tomonlari 8 sm, 10 sm, 12 sm ga teng. Uchlari shu uchburchak tomonlarining o'rtalarida yotgan uchburchak tomonlarini toping.
- Teng yonli trapetsiyaning qarama-qarshi burchaklari ayirmasi  $40^\circ$  ga teng ekani ma'lum bo'lsa, uning burchaklari nimaga teng?

## Geometriya.IX-sinf.IV-chorak test.C-variant

1. To'g'ri tasdiqni toping.

#1 Teng kesmalarning proyeksiyalari ham teng #2 Katta kesmaning proyeksiyasi kata #3 Bir to'g'ri chiziqdagi kesmalarning proyeksiyalari teng #4 Proyeksiya uzunligi proyeksiyalanuvchi kesma uzunligiga bog'liq emas #5 TJY

2. To'g'ri burchakli uchburchak katetlarining nisbati 3:4 ga teng. Bu uchburchakning gipotenuzasi 50 sm. Uchburchakning to'g'ri burchagi uchidan tushirilgan balandligi gipotenuzadan ajratgan kesmaning kichigini toping.

#1 24 sm #2 30 sm #3 40 sm #4 18 sm #5 32 sm

3. Aylananing AB va CD vatarlari E nuqtada kesishadi. Agar  $AE=5$  sm,  $BE=6$  sm va  $EC=2,5$  sm bo'lsa, ED ni toping.

#1 4 sm #2 8 sm #3 12 sm #4 2 sm #5 6 sm

4. Aylananing AB va CD vatarlari O nuqtada kesishadi. Agar  $AO=6$ ,  $OB=4$  va  $CO=3$  bo'lsa, OD kesmani toping.

#1 4 sm #2 8 sm #3 12 sm #4 2 sm #5 6 sm

5. Aylana A,B,C,D nuqtalar belgilangan, BA va CD nurlar O nuqtada kesishadi. Agar  $OA=5$ ,  $AB=1$ ,  $OD=3$  bo'lsa, DC vatarini toping.

#1 1,5 #2 10 #3 20,5 #4 7 #5 3

6. Aylana B nuqtada urinuvchi to'g'ri chiziq ustida A nuqta olindi. Agar  $AB=12$  va A nuqtadan aylanagacha bo'lgan eng qisqa masofa 6 bo'lsa, aylana radiusini toping.

#1 5 #2 16 #3 2 #4 7,5 #5 10,5

7. Yarim aylanadagi C nuqtadan AB diametrga tushirilgan CD perpendikulyar AB kesmada 7 va 7 ga teng kesmalar ajratadi. CD kesmani toping.

#1 6 #2 7 #3 10 #4 8 #5 9

8. To'g'ri burchakli uchburchakning balandligi gipotenuzani 3 dm va 12 dm ga teng kesmalarga bo'ladi. Uchburchak yuzini toping.

#1  $3\sqrt{5}$  dm<sup>2</sup> #2  $6\sqrt{5}$  dm<sup>2</sup> #3  $2\sqrt{5}$  dm<sup>2</sup> #4 45 dm<sup>2</sup> #5 12 dm<sup>2</sup>

9. Radiusi 5 m bo'lgan O markazli aylanani A va B nuqtalarda kesuvchi to'g'ri chiziqda P nuqta olindi. Agar  $PA=5$  m,  $AB=2,8$  m bo'lsa, OP masofani toping.

#1 1 m #2 2 m #3 8 m #4 4 m #5 5 m

10. To'g'ri burchakli uchburchakning katetlari nisbati 2:3 kabi. Uchburchakning gipotenuzaga tushirilgan balandlik uni ikkita uchburchakka bo'ladi. Ular yuzlarining nisbatini toping.

#1 2:3 #2 4:9 #3 8:12 #4 10:15 #5 12:18

11.  $\vec{a}(4; -3)$   $\vec{b}(4; -6)$  vektorlarni skalyar ko'paytiring.

#1 26 #2 -10 #3 34 #4 -2 #5 7

12. ABC uchburchakda  $AB=6$  sm,  $\sphericalangle A=60^\circ$ ,  $\sphericalangle B=75^\circ$ . ABC uchburchakka tshqi chizilgan aylananing radiusini toping.

#1  $\sqrt{2}$  #2  $3\sqrt{2}$  #3 5 #4  $5\sqrt{2}$  #5 10

13. To'g'ri javobni aniqlang. Istalgan aylana uzunligining shu aylana diametriga nisbati

#1 aylanaga bog'liq #2 radiusga proporsional #3  $\pi$  gat eng #4 radiusning kvadratiga proporsional #5 TJY

14. To'g'risini toping. Doiraning vatari uni

#1 ikkita segmentga; #2 ikkita sektorga #3 ikkita yoyga #4 tengdosh shakllarga #5 ikkita aylanaga ajratadi

15. Tomoni 2 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.

#1 56,52 sm<sup>2</sup> #2 25,12 sm<sup>2</sup> #3 100,48 sm<sup>2</sup> #4 157 sm<sup>2</sup> #5 6,28 sm<sup>2</sup>

16. Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 3 sm bo'lgan obyektlar orasidagi masofani toping.

#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km

17. Koeffitsienti  $k=3$  bo'lgan gomotetiyada F ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi 4,5 sm<sup>2</sup> bo'lsa, F ko'pburchakning perimetrini toping.

#1 46 sm #2 36 sm #3 24 sm #4 56 sm #5 24 sm

18. Koeffitsienti  $k=4$  bo'lgan gomotetiyada F ko'pburchak  $F_1$  ko'pburchakka almashadi. Agar  $F_1$  ko'pburchakning perimetri 12 sm va yuzi 4,5 sm<sup>2</sup> bo'lsa, F ko'pburchakning perimetrini toping.

#1 48 sm #2 36 sm #3 24 sm #4 56 sm #5 24 sm

19.  $\cos a = \frac{\sqrt{3}}{2}$  bo'lsa, a o'tkir burchakni toping.

20.  $\sin a = 0,6$  bo'lsa, ctga ni toping.

21. Parallelogrammning ikki burchagi yig'indisi  $148^\circ$  ga teng. Uning burchaklarini toping.

22. Romb burchaklaridan biri ikkinchisidan 4 marta katta. Rombning burchaklarini toping.

23. Teng yonli uchburchakning yon tomoni 5 m ga teng. Shu uchburchakning asosida olingan nuqtadan uning yon tomonlariga parallel ikkita to'g'ri chiziq o'tkazilgan. Hosil qilingan parallelogrammning perimetrini toping.

24. Uchburchakning tomonlari 8 sm, 10 sm, 12 sm ga teng. Uchlari shu uchburchak tomonlarining o'rtalarida yotgan uchburchak perimetrini toping.

25. Teng yonli trapetsiyaning qarama-qarshi burchaklari ayirmasi  $40^\circ$  ga teng ekani ma'lum bo'lsa, uning o'tmas burchagi va o'tkir burchagi ayirmasi nimaga teng?

## Geometriya.IX-sinf.IV-chorak test.D-variant

- To'g'ri burchakli uchburchakning gipotenuzasiga tushirilgan balandlik uni ikkita uchburchakka ajratadi. Bu uchburchaklar: #1 teng #2 tengdosh #3 o'xshash #4 teng yonli #5 teng tomonli
- To'g'ri burchakli uchburchak katetlarining nisbati 3:4 ga teng. Bu uchburchakning gipotenuzasi 50 sm. Uchburchakning to'g'ri burchagi uchidan tushirilgan balandligi gipotenuzadan ajratgan kesmaning kattasini toping.  
#1 24 sm #2 30 sm #3 40 sm #4 18 sm #5 32 sm
- Aylananing AB va CD vatarlari E nuqtada kesishadi. Agar AE=5sm, BE=2 sm va EC=5 sm bo'lsa, ED ni toping.  
#1 4 sm #2 8 sm #3 12 sm #4 2 sm #5 6 sm
- Aylanada A,B,C,D nuqtalar belgilangan, BA va CD nurlar O nuqtada kesishadi. Agar OA=5, AB=4, OD=6 bo'lsa, DC vatarni toping.  
#1 1,5 #2 10 #3 20,5 #4 7 #5 3
- Aylanada A,B,C,D nuqtalar belgilangan, BA va CD nurlar O nuqtada kesishadi. Agar OA=10, AB=8, OD=12 bo'lsa, DC vatarni toping.  
#1 1,5 #2 10 #3 20,5 #4 7 #5 3
- Aylanaga B nuqtada urinuvchi to'g'ri chiziq ustida A nuqta olindi. Agar AB= 10 va A nuqtadan aylanagacha bo'lgan eng qisqa masofa 5 bo'lsa, aylana radiusini toping.  
#1 5 #2 16 #3 2 #4 7,5 #5 10,5
- Yarim aylanadagi C nuqtadan AB diametrga tushirilgan CD perpendikulyar AB kesmada 4 va 25 ga teng kesmalar ajratadi. CD kesmani toping.  
#1 6 #2 7 #3 10 #4 8 #5 9
- To'g'ri burchakli uchburchakning balandligi gipotenuzani 3 dm va 12 dm ga teng kesmalarga bo'ladi. Uchburchak kichik katetini toping.  
#1  $3\sqrt{5}$  dm #2  $6\sqrt{5}$  dm #3  $2\sqrt{5}$  dm #4 45 dm #5 12 dm
- To'rtta parallel to'g'ri chiziq berilgan. Ular burchak tomonlarini A va A<sub>1</sub>, B va B<sub>1</sub>, C va C<sub>1</sub> hamda D va D<sub>1</sub> nuqtalarda kesadi. Agar AB=8, CD=12 va C<sub>1</sub>D<sub>1</sub>=9 bo'lsa, A<sub>1</sub>B<sub>1</sub> kesmani toping.  
#1 2 #2 4 #3 6 #4 8 #5 10
- Agar to'g'ri burchakli uchburchakning balandligi gipotenuzani 6 sm va 54 sm kesmalarga ajratsa, bu uchburchakning yuzini toping.  
#1 648 sm<sup>2</sup> #2 324 sm<sup>2</sup> #3 1080 sm<sup>2</sup> #4 540 sm<sup>2</sup> #5 256 sm<sup>2</sup>
- $\vec{a}(4; -3)$   $\vec{b}(4; 6)$  vektorlarni skalyar ko'paytiring.  
#1 26 #2 -10 #3 34 #4 -2 #5 7
- Tomonlari 5 sm, 6 sm va 10 sm bo'lgan uchburchak 5 sm li tomoni qarshisidagi burchak kosinusini toping.  
#1 0,65 #2 0,89 #3 0,925 #4 0,96 #5 0,66
- Noto'g'risini toping. Iсталgan doira yuzining radiusga nisbati  
#1 radiusga teng #2 radiusga proporsional #3 diametrga proporsional #4 o'zgarmas son #5 TJY
- Tomoni 4 sm ga teng bo'lgan kvadratga ichki chizilgan doiraning yuzini toping.  
#1 56,52 sm<sup>2</sup> #2 25,12 sm<sup>2</sup> #3 100,48 sm<sup>2</sup> #4 157 sm<sup>2</sup> #5 6,28 sm<sup>2</sup>
- Tomoni 6 sm ga teng bo'lgan kvadratga tashqi chizilgan doiraning yuzini toping.  
#1 226,08 sm<sup>2</sup> #2 100,48 sm<sup>2</sup> #3 401,92 sm<sup>2</sup> #4 628 sm<sup>2</sup> #5 25,12 sm<sup>2</sup>
- Agar xarita 1:50000 masshtabda tasvirlangan bo'lsa xaritada 4 sm bo'lgan obyektlar orasidagi masofani toping.  
#1 5 km #2 1 km #3 1,5 km #4 2 km #5 2,5 km
- Koeffitsienti k=3 bo'lgan gomotetiyada F ko'pburchak F<sub>1</sub> ko'pburchakka almashadi. Agar F<sub>1</sub> ko'pburchakning perimetri 12 sm va yuzi 4,5 sm<sup>2</sup> bo'lsa, F ko'pburchakning yuzini toping.  
#1 46,5 sm<sup>2</sup> #2 36 sm<sup>2</sup> #3 24 sm<sup>2</sup> #4 40,5 sm<sup>2</sup> #5 24 sm<sup>2</sup>
- sina=1 bo'lgan a o'tkir burchakni toping. #1 30° #2 45° #3 90° #4 60° #5 180°
- cosa=1 bo'lsa, a o'tkir burchakni toping.
- cosa =  $\frac{\sqrt{3}}{2}$  bo'lsa, sina ni toping.
- Parallelogrammning ikki burchagi yig'indisi 144° ga teng. Uning qo'shni burchaklari yig'indisini toping.
- Romb burchaklaridan biri ikkinchisidan 5 marta katta. Rombning burchaklarini toping.
- Tomoni 1 m ga teng kvadrat berilgan, bu kvadratning diagonali ikkinchi kvadratning tomoniga teng. Ikkinchi kvadratning diagonalini toping.
- Uchburchakning tomonlari 8 sm, 10 sm, 12 sm ga teng. Uchlari shu uchburchak tomonlarining o'rtalarida yotgan uchburchak eng kichik tomonini toping.
- ABC uchburchakning AB va AC tomonlari o'rtalari mos ravishda E va F nuqtalar bo'lsin. Agar AEF uchburchak yuzi 3 sm<sup>2</sup> bo'lsa, ABC uchburchak yuzini toping.