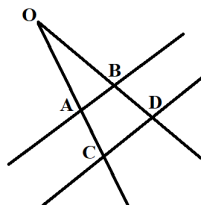


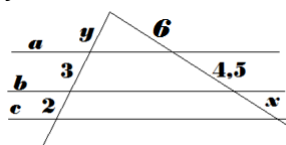
## 40-Mavzu. Uchburchaklar-4

1.  $AB \parallel CD$ ,  $CA$  va  $DB$  to‘g‘ri chiziqlar  $O$  nuqtada kesishadi.  $OA=3$  cm,  $OB=4$  cm,  $AC=1,5$  cm bo‘lsa,  $BD$  ni toping.



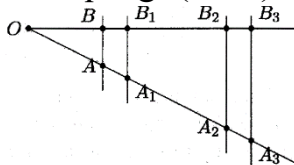
- A) 3 cm    B) 2 cm    C) 2,5 cm    D) 2,1 cm

2. Chizmada  $a \parallel b$ ,  $b \parallel c$  bo‘lsa,  $\frac{x}{y} = ?$



- A)  $\frac{1}{2}$     B)  $\frac{2}{3}$     C)  $\frac{3}{4}$     D)  $\frac{3}{2}$

3. Agar  $OA:AA_1:A_1A_2:A_2A_3 = 3:1:4:1$  bo‘lsa,  $AB:A_1B_1:A_2B_2:A_3B_3$  ( $AB \parallel A_1B_1 \parallel A_2B_2 \parallel A_3B_3$ ) nisbatni aniqlang. (rasm)



- A) 3:4:8:9    B) 3:1:4:1    C) 3:2:4:9    D) 6:1:8:1

4. Teng yonli uchburchak yon tomoniga o‘tkazilgan mediana uning asosi bilan  $45^\circ$  li burchak tashkil etadi. Uchburchakning asosidagi burchagi tangensini toping.

- A) 2,5    B)  $\frac{5}{3}$     C) 3    D) 4

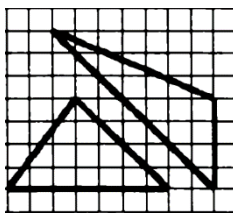
5. Teng yonli uchburchak yon tomoniga o‘tkazilgan mediana uning asosi bilan  $30^\circ$  li burchak tashkil etadi. Uchburchakning asosidagi burchagi tangensini toping.

- A) 2,5    B)  $\frac{5}{3}$     C) 3    D)  $\sqrt{3}$

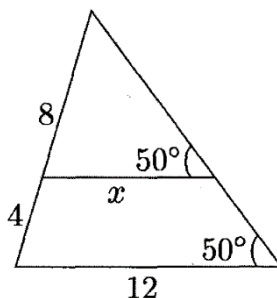
6.  $ABC$  teng yonli uchburchakning ( $AB=BC$ )  $BC$  tomonida  $D$  nuqta shunday olinganki,  $BD:DC=1:4$ .  $AD$  to‘g‘ri chiziq  $ABC$  uchburchakning  $BE$  balandligini  $B$  uchidan boshlab hisoblaganda qanday nisbatda bo‘ladi.

- A) 2:1    B) 3:1    C) 1:2    D) 1:3

7. Rasmda tasvirlangan uchburchaklar haqidagi to‘g‘ri tasdiq berilgan javobni toping.



- A) ular o‘xshash uchburchaklar B) ularning perimetrlari teng  
C) ular tengdosh uchburchaklar D) uchburchaklardan biri to‘g‘ri burchakli
8. Rasmdan foydalanib,  $x$  ning qiymatini toping.

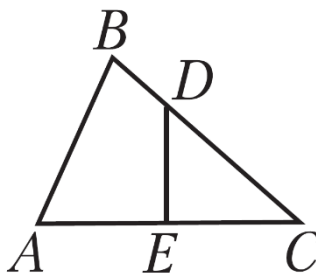


- A) 6,5 B) 8 C) 9 D) berilgan ma’lumotlar yetarli emas
9. Perimetrlari 24 va 36 bo‘lgan ikki o‘xshash uchburchakdan birining yuzi ikkinchisidan 10 ga ortiq. Kichik uchburchakning yuzini toping.  
A) 20 B) 16 C) 8 D) 12
10. Ikkita o‘xshash uchburchakning yuzlari 6 va 24, ulardan birining perimetri ikkinchisidan 6 ga ortiq. Katta uchburchakning perimetrini toping.  
A) 18 B) 12 C) 20 D) 8
11. Ikkita o‘xshash uchburchakdan birining perimetri ikkinchisidan 2 marta katta. Agar bu uchburchaklar yuzlari yig‘indisi 105 ga teng bo‘lsa, bu uchburchaklar yuzlari ayirmasini toping.  
A) 63 B) 84 C) 36 D) 72
12. Uchburchakning asosiga parallel to‘g‘ri chiziq uning yuzini teng ikkiga bo‘lsa, asosidan boshlab hisoblaganda, uning yon tomonlarini qanday nisbatda bo‘ladi?  
A)  $(\sqrt{2} - 1):1$  B)  $1:1$  C)  $\frac{1}{2}:1$  D)  $(\sqrt{3} - 1):1$

13. Uchburchakning yon tomoni uchidan boshlab hisoblaganda 2: 3: 4 kabi nisbatda bo'lini va bo'linish nuqtalari orqali asosiga parallel to'g'ri chiziqlar o'tkazildi. Hosil bo'lgan figuralar yuzlarining nisbatini toping.

A) 4: 9: 16    B) 2: 5: 9    C) 4: 25: 49    D) 4: 21: 56

14. Rasmdagi ABC va DEC uchburchaklar o'xshash bo'lib, BC=20, EC=15, AE=9. CD kesma uzunligini toping.



A) 12,5    B) 25    C) 9    D) 18

15. To'g'ri burchakli uchburchak to'g'ri burchagi uchidan chiquvchi bissektrisasi va balandligi mos ravishda  $\sqrt{5}$  va  $\sqrt{3}$ . Uchburchakning yuzini toping.

A) 6    B) 10    C) 15    D) 12

16. ABC to'g'ri burchakli uchburchakning katetlari  $AB = 4$ ,  $AC=6$  va AN bissektrisa bolsa, ABN uchburchakning yuzini toping.

A) 3    B) 4,8    C) 4    D) 4,2

17. ABC to'g'ri burchakli uchburchakning katetlari  $AB=4$ ,  $AC=6$  va AN bissektrisa bolsa, ACN uchburchakning yuzini toping.

A) 6,3    B) 4,8    C) 7,2    D) 4,2

18. Uchburchakning tomonlari 6;7 va 8 ga teng. Katta tomonga bissektrisa o'tkazilgan. Hosil bo'lgan kesmalarning kichigini toping.

A) 3    B) 5    C)  $\frac{49}{13}$     D)  $\frac{48}{13}$

19. ABC uchburchakda BE mediana va AD bissektrisa o'zaro perpendikulyar bo'lsa, AB:AC nisbatni toping.

A) 3:1    B) 1:3    C) 2:1    D) 1:2

20. ABC uchburchakda A uchidan tushirilgan bissektrisa BC tomonni  $x$  va 10 ga teng kesmalarga ajratadi.  $AB=10$ ,  $AC=6x+1$  bo'lsa,  $x$  ni toping.

A) 2    B) 5    C) 4    D) 3

21. To‘g‘ri burchakli uchburchak o‘tkir burchagi bissektrissasi qarshisidagi katetni 12 va 13 ga teng bo‘lgan kesmalarga ajratadi. Uchburchak perimetrini toping.  
A) 30 B) 150 C) 80 D) 100
22. To‘g‘ri burchakli uchburchakda o‘tkir burchak bissektrisasi qarama-qarshi katetni uzunligi 4 cm va 5 cm bo‘lgan kesmalarga bo‘ladi. Uchburchak yuzasini toping  
A) 54 B) 64 C) 10 D) 55
23. Katetlari 8 va 6 ga teng bo‘lgan to‘g‘ri burchakli uchburchakning kichik katetiga tushirilgan bissektrissa gipotenuzaga tushirilgan medianani qanday uzunlikdagi kesmalarga ajratadi?  
A)  $\frac{25}{11}$  va  $\frac{40}{11}$  B) 3 va 2 C)  $\frac{35}{13}$  va  $\frac{30}{13}$  D)  $\frac{25}{13}$  va  $\frac{40}{13}$
24. To‘g‘ri burchakli uchburchak gipotenuzasini 15 cm va 20 cm li ikkita kesmalarga ajratuvchi nuqta uning katetlardan baravar uzoqlikda yotadi. Shu uchburchakning yuzasi necha  $\text{cm}^2$ .  
A) 200 B) 150 C) 300 D) 250
25. To‘g‘ri burchakli uchburchakning gipotenuzasiga tushirilgan balandligi uni perimetrlari 7 va 24 ga teng bo‘lgan ikkita kichkina uchburchakchalarga ajratadi. Berilgan uchburchakning perimetrini toping.  
A) 25 B) 30 C) 35 D) 40
26. ABC uchburchakning  $AB=12$ ,  $AC=8$  tomonlari berilgan. Uchburchakda AD bissektrisasi o‘tkazilgan bo‘lib, u BC tomonni uzunligi berilgan tomonlardan biriga teng bo‘lgan ikki kesmaga ajratadi. Uchburchakning BC tomoni uzunligini toping.  
A) 12 B) 20 C)  $13\frac{1}{3}$  D)  $5\frac{1}{3}$
27. ABC uchburchakning AB tomonida D nuqta olingan bo‘lib,  $AD=2$ ,  $DB=7$ ,  $\angle ACD=\angle ABC$  va  $\angle BAC=45^\circ$  bo‘lsa, ABC uchburchakning yuzini toping.  
A)  $\frac{27\sqrt{2}}{2}$  B) 13,5 C) 27 D)  $27\sqrt{2}$
28. Uchburchakning balandligi 4 ga teng bo‘lib, u asosini uzunliklarining nisbati 1:8 kabi bo‘lgan ikki qismga ajratadi. Uchburchakni ikkita tengdosh figuraga ajratuvchi va uchburchak balandligiga parallel bo‘lgan kesma uzunligini aniqlang.  
A) 3 B) 2 C) 2,5 D) 3,5

29. Uchburchakning  $a$  tomoniga tushirilgan  $h_a$  balandlik uni 64 va 14 bo‘lgan kesmalarga, bissektrisa esa shu tomolni 8:5 nisbatda bo‘ladi. Uchburchakning  $h_a$  balandligini va perimetrini toping.  
A) 48;208    B) 48;200    C) 40;208    D) 40;200
30. Uchburchakning tomonlari  $BC=17$ ,  $CA=13$ ,  $AB=22$  berilgan. Uchburchak bissektrisalar kesishgan nuqtasi uning B burchagidan chiquvchi bissektrisasini uchburchak uchidan boshlab hisoblaganda qanday nisbatda bo‘ladi?  
A) 3:2    B) 4:3    C) 3:1    D) 5:2
31. Uchburchakning  $30^\circ$  li burchagi uchidan chiquvchi bissektrisasi o‘zi tushgan tomolni uzunliklari 4 va 9 bo‘lgan ikkita kesmaga ajratadi. Agar uchburchak yuzi 34 ga teng bo‘lsa, bu bissektrisa uzunligini toping.  
A) 13    B) 8    C) 10    D) 7
32.  $ABC$  uchburchakning  $AC$  va  $BC$  tomonlarida  $AM:MC = 3:2$  va  $BN:NC = 3:2$  shartni qanoatlantiruvchi  $M$ ;  $N$  nuqtalar olingan. Agar  $AMNB$  to‘rtburchak yuzi 84 ga teng bo‘lsa,  $ABC$  uchburchak yuzini toping.  
A) 140    B) 100    C) 90    D) 120
33.  $\triangle ABC$  da  $AB = 13$ ;  $BC = 17$  hamda  $AC = 15$ .  $BL$  bissektrisa ( $L \in AC$ );  $I$  – bissektrisalar kesishish nuqtasi  $BL$  kesmani qanday nisbatda bo‘ladi?  
A) 17:13    B) 34:13    C) 26:17    D) 2:1
34.  $AD$  va  $CF$  –  $ABC$  uchburchakning bissektrisalari ( $D \in BC$ ,  $F \in AB$ ). Agar  $FA=2$ ,  $AC=6$  va  $CD=3$  bo‘lsa,  $BDF$  uchburchak yuzining  $AFDC$  to‘rtburchak yuziga nisbatini toping.  
A)  $\frac{1}{10}$     B)  $\frac{1}{5}$     C)  $\frac{2}{5}$     D)  $\frac{1}{15}$
35. Agar  $ABC$  uchburchakda  $\angle A = 30^\circ$  va  $\angle B = 50^\circ$  bo‘lsa, uchburchakning tomonlari uchun quyidagi munosabatlardan qaysi biri to‘g‘ri bo‘ladi?  
A)  $a = \frac{c^2-2b^2}{b}$     B)  $a = \frac{c^2-2b^2}{2b}$     C)  $a = \frac{c^2-b^2}{4b}$     D)  $a = \frac{c^2-b^2}{b}$

**Kalitlar**

1.	B	16.	B	31.	C
2.	C	17.	C	32.	B
3.	A	18.	D	33.	D
4.	C	19.	D	34.	B
5.	D	20.	C	35.	D
6.	C	21.	B		
7.	C	22.	A		
8.	B	23.	D		
9.	C	24.	B		
10.	B	25.	A		
11.	A	26.	C		
12.	A	27.	B		
13.	D	28.	A		
14.	D	29.	A		
15.	C	30.	C		