37-Mavzu. Uchburchaklar

1. Tomonlari $x, (x-4), (x+1)$ bo'lgan uchburchak perimetrini toping.
   A) $3x+1$ B) $3x-1$ C) $3x-3$ D) $3x-5$

2. Uchburchakning tashqi burchagi 120° bo'lib, unga qo'shni bo'lmagan ichki burchaklarining biri ikkinchisidan 40° ga farq qiladi. Uchburchakning ichki burchaklarini hisoblang.
   A) 60°, 35°, 85° B) 40°, 50°, 90° C) 30°, 60°, 90° D) 40°, 60°, 80°

3. Teng yonli uchburchak uchidagi burchagi 50°. Uning yon tomoniga tushirilgan balandligi va asosi orasidagi burchakni toping.
   A) 40°   B) 15°   C) 50°   D) 25°

4. Teng yonli uchburchak uchidagi burchagi 70°. Yon tomonlariga o'tkazilgan bissektrisalari orasidagi o'tkir burchakni toping.
   A) 60°   B) 70°   C) 80°   D) 55°

5. Teng yonli uchburchakning uchidagi burchagi 40°. Asosidagi burchaklarning biridan balandlik, ikkinchisidan bissektrisa o'tkazilgan. Ular orasidagi burchakni toping.
   A) 40°   B) 45°   C) 50°   D) 55°

6. Agar ABC uchburchakning burchaklari $\angle A: \angle B: \angle C = 2:3:4$ shartlarni qanoatlantirsa, uchburchakning qaysi tomoni eng katta bo'ladi?
   A) AC   B) aniqlab bo'lmaydi   C) AB   D) BC

7. ABC uchburchakning B va C burchaklari bissektrisalari 128° burchak ostida kesishadi. A burchakning qiymatini toping.
   A) 104°   B) 76°   C) 72°   D) 66°

8. ABC uchburchakda A va B burchaklarning bissektrissalari kesishishidan hosil bo'lgan kichik burchak 70° bo'lsa, bu uchburchakning C burchagi necha gradus?
   A) 40°   B) 70°   C) 80°   D) 30°

9. ABC uchburchakda AD bissektrissa. ACB burchak 80°, ADB burchak 120° bo'lsa, ABC burchakning qiymatini toping.
   A) 10°   B) 20°   C) 30°   D) 40°

10. Teng yonli uchburchakning perimetri 90 m bo'lib, yon tomoni asosidan 4 marta katta. Uchburchakning asosini (m) toping.
A) 10   B) 40   C) 20   D) 18

11. ABC uchburchakning CD medianasi ACD muntazam uchburchak hosil qilsa, $\angle$DCB ni toping.
A) 50°   B) 30°   C) 40°   D) 45°

12. Uchburchak tomonlari 2, 3, 4 sonlariga proporsional bo'lib, perimetri 36 ga teng. Shu uchburchak tomonlarini toping.
A) 2, 3, 4   B) 8, 12, 16   C) 10, 15, 20   D) 12, 12, 12

13. Simni bukib, yon tomoni 10 ga va asosi 7 ga teng bo'lgan teng yonli uchburchak hosil qilish mumkin. Shu simni bukish yordamida teng tomonli uchburchak yasalsashu teng tomonli uchburchakning tomoni nechaga teng bo'ladi?
A) 7   B) 8   C) 9   D) 10

14. Perimetri 24 bo'lgan uchburchakning balandligi uni perimetrlari 14 va 18 bo'lgan ikki uchburchakka ajratadi. Berilgan uchburchakning balandligini toping.
A) 10   B) 8   C) 6   D) 4

15. Uchburchakning o'rta chiziqlari uzunliklari 6, 7 va 8 ga teng bo'lsa, perimetrini toping.
A) 21   B) 30   C) 42   D) 50

16. Uchburchakning tomonlari 4 cm, 6 cm, 8 cm ga teng. Shu uchburchakning o'rta chiziqlarini (cm) toping.
A) 1;2;3   B) 4;5;6   C) 2;3;4   D) 3;4;5

17. O'rta chiziqlari nisbati 3:5:7 kabi bo'lgan uchuburchakning perimetri 150 ga teng. Uchburchakning eng katta o'rta chizig'ini toping.
A) 25   B) 35   C) 50   D) 70

18. ABC uchburchakda AB=AC=12. Perimetri P=32. AD balandlik o'tkazilgan. CD ni toping;
A) 6   B) 8   C) 3   D) 4

19. Teng yonli uchburchakning asosi yon tomonidan 2 cm ga qisqa. Agar uchburchakning perimetri 19 cm bo'lsa, asosining uzunligi necha santimetrga teng?

A) 4   B) 5   C) 6   D) 7

20. ABC uchburchakning burchaklari 2:3:1 nisbatda. Agar eng kichik tomoni 5 cm bo'lsa, eng katta tomoni uzunligini (cm) toping.

A) 8   B) 10   C) $5\sqrt{3}$ D) $5\sqrt{2}$

21. Agar ABC uchburchakning tomonlari $AB:AC:BC = 5:3:4$ nisbatda bo'lsa, uchburchakning qaysi burchagi eng katta bo'ladi?

A) $\angle ABC$ B) aniqlab bo'lmaydi   C) $\angle ACB$ D) $\angle BAC$

22. a ning qanday qiymatlarida uzunliklari mos ravishda $a + 2;\ 4$ va $2a - 1$ bo'lgan kesmalardan uchburchak yasash mumkin?

A) $1 < a < 7$ B) $0 < a < 5$ C) $1 < a < 8$ D) $0 < a < 7$

23. Uchburchakning tomonlari 24, 9 va x ga teng. x soni qaysi oraliqqa tegishli bo'ladi?

A) $(0; 33)$ B) $(15; 33)$ C) $(8; 25)$ D) $(24; 33)$

24. Perimetri 30 bo'lgan uchburchakning bissektrisasi uni perimetrlari 16 va 24 bo'lgan ikkita uchburchakka ajratadi. Berilgan uchburchakning bissektrisasini toping.

A) 6   B) 8   C) 5   D) 7

25. Perimetri 30 ga teng bo'lgan uchburchakning balandligi uni perimetrlari 18 va 24 ga teng bo'lgan ikkita uchburchakka ajratsa, shu balandlikning uzunligini toping.

A) 4   B) 8   C) 6   D) 12

26. Uchburchakning ikki tomoni 0,8 va 1,9 ga teng. Uning uchinchi tomoni uzunligi butun son. Shu tomonni toping.

A) 1   B) 2   C) 3   D) 4

27. Uchburchakning ikkita tomoni 0,5 va 7,9 ga teng. Uchinchi tomonning uzunligi butun son ekanligini bilgan holda shu tomonini toping.

A) 8   B) 7   C) 6   D) 5

28. Uchburchak ikki burchagi yig'indisining sinusi $\frac{1}{3}$ bo'lsa, uchinchi burchagining sinusini toping.

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

29. Uchburchak ikkita burchagi yig'indisining kosinusi $\frac{1}{2}$ ga teng. Uchinchi burchagining kosinusini toping.

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

30. ABC uchburchakning A va C burchaklari $20°$ va $40°$ ga, B burchakning bissektrisasi 2 ga teng bo'sa, $AC - AB$ ni toping.

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

Kalitlar

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