

## 7-SINF. MATEMATIKA. 4-VARIANT

1.  $x - y = -3$  va  $x^2 + y^2 = 29$  bo'lsa,  $|x + y|$  ning qiymatini toping.

A) 7                      B) 3                      C) 5                      D) 17.
2.  $p$  ning qanday qiymatlarida  $7x - 12p = 7$  tenglama manfiy ildizga ega?

A)  $-\frac{7}{12} < p$             B)  $p > -\frac{7}{12}$             C)  $p > \frac{7}{12}$             D)  $\frac{7}{12} < p$ .
3. Kasrni qisqartiring:  $\frac{xy - x + y - y^2}{x^2 - y^2}$ .

A)  $-\frac{1-y}{x+y}$             B)  $\frac{y}{x+y}$             C)  $-\frac{x}{x-y}$             D)  $\frac{1-y}{x-y}$ .
4. Ikki sonning ayirmasi 27 ga teng. Agar birinchi sonni ikkinchisiga bo'lsak, bo'linma 4 ga va qoldiq 3 ga teng chiqadi. Berilgan sonlarni yig'indisini toping.

A) 31                      B) 38                      C) 43                      D) 29.
5. Quyidagi sonlardan qaysi biri  $\sqrt{\frac{17}{112}}$  ga teng emas?

A)  $\frac{1}{28}\sqrt{119}$             B)  $\frac{1}{28}\sqrt{17}$             C)  $\frac{1 \cdot \sqrt{17}}{4 \cdot \sqrt{7}}$             D)  $\frac{\sqrt{17}}{\sqrt{16 \cdot \sqrt{7}}}$ .
6. Ikkita buyumning birgalikdagi bahosi 43500 so'm turadi. Agar birinchi buyumning bahosi 10% kamaytirilsa, ikkinchisniki esa 15% orttirilsa, ular birgalikda 45100 so'm turadi. Birinchi buyumning dastlabki bahosini toping.

A) 19700            B) 17320            C) 23800            D) 21830.
7.  $\frac{x^3 + y^3}{x^2 - xy + y^2} - \frac{x^2 - y^2}{x + y} - 2(x + 2y)$  ni soddalashtiring.

A)  $-2x - 2y$             B)  $-2y$             C)  $2y$             D)  $2x$ .
8.  $-5\frac{3}{4}$  ga teskari sonni toping.

A)  $-\frac{23}{4}$             B)  $-\frac{4}{23}$             C)  $5\frac{3}{4}$             D)  $\frac{4}{23}$ .
9.  $a(b-c) - b(c-a) - c(a-b)$  ni soddalashtiring.

A)  $2ab - abc$             B) 0            C)  $-2ac$             D)  $2ab - 2ac$ .
10.  $(2y - 3z)^3 - (x - 3x)^3 - (2y - x)^3$  ko'phadni ko'paytuvchilarga ajrating.

A)  $-3(2y - 3z)(x - 3z)(2y - x)$             B)  $6(2y - x)(2y - 3z)(x - 3z)$   
C) ko'paytuvchilarga ajralmaydi            D)  $3(2y - x)(2y - 3z)(x - 3z)$ .

11. Sement va qumdan iborat 30 rukg qorishmaning 60% ini sement tashkil etadi. Qorishmaning 40% I sementdan iborat bo'lishi uchun qorishmaga qancha qum qo'shish kerak?
- A) 15                      B) 10                      C) 12                      D) 18.
12.  $\frac{3n-24}{n}$  ifoda natural son bo'ldaigan  $n$  ning natural qiymatlari nechta?
- A) 2                      B) 5                      C) 3                      D) 7.
13. To'g'ri burchakli uchburchakning o'tkir burchagi  $60^\circ$  ga, gipotenuzaga tushirilgan balandlik 12 ga teng. Berilgan uchburchakning kichik kateti qancha?
- A)  $12\sqrt{3}$                       B)  $8\sqrt{3}$                       C)  $6\sqrt{3}$                       D) 24.
14. Uchburchak ikkita burchagining qiymatlari nisbati 5:9 kabi, uchinchi burchagi shu burchaglarining kichigidan  $29^\circ$  ga kichik. Uchburchagning eng kichik burchagini toping.
- A)  $36^\circ$                       B)  $26^\circ$                       C)  $40^\circ$                       D)  $50^\circ$ .
15. Teng yonli uchburchakning asosidagi burchak uchidagi burchagning 75% iga teng. Uchburchakning uchidagi burchagini toping.
- A)  $135^\circ$                       B)  $72^\circ$                       C)  $120^\circ$                       D)  $90^\circ$ .
16. To'g'ri burchakli trapetsiyaning asoslari 12 va 9 ga, yuzi esa 42 ga teng. Shu trapetsiyaning perimetrini toping.
- A) 42                      B) 25                      C) 30                      D) 20.
17. Uchburchaksning ikkita burchagi yig'indisi  $70^\circ$  ga teng. Shu burchaklarning bissektrissalari kesishishidan hosil bo'lga burchaklardan kichigi necha gradusga teng?
- A)  $40^\circ$                       B)  $45^\circ$                       C)  $35^\circ$                       D)  $50^\circ$ .
18. Ikki parallel to'g'ri chiziqni uchinchi to'g'ri chiziq kesib o'tganda hosil bo'lgan ichki bir tomonli burchaklardan biri ikkinchisidan 17 marta kichik. Shu burchaklardan kichigini toping.
- A)  $10^\circ$                       B)  $20^\circ$                       C)  $15^\circ$                       D)  $24^\circ$ .
19. Uchburchakning birinchi tomoni  $x$  sm ( $x > 12$ ), ikkinchi tomoni undan 8 sm qisqa, uchinchi tomoni esa birinchisidan 4 sm uzun. Shu uchburchakning perimetrini toping.
- A)  $3x+12$                       B)  $3x-4$                       C)  $3x-12$                       D)  $3x+4$ .
20.  $\alpha$  va  $\beta$  burchaklar qo'shni burchaklar. Agar  $\alpha = 0,8\beta$  bo'lsa,  $\beta$  va  $\alpha$  burchaklar ayirmasini toping.
- A)  $60^\circ$                       B)  $40^\circ$                       C)  $20^\circ$                       D)  $80^\circ$ .

21.  $a=2.4$ ,  $b=3.6$ ,  $h=1.6$  bo'lsa,  $s = \frac{1}{2}(a+b)h$  ifodaning son qiymatini toping.

- A) 48:                      B) 3.18:                      C) 6.36:                      D) 0.48:                      E) 4.8

22.  $a=12.5$ ,  $b=6.4$ , bo'lsa,  $s = \frac{1}{2}ah$  ifodaning son qiymatini toping.

- A) 40:                      B) 400:                      C) 4:                      D) 36.1:                      E) 37.1

23.  $a=5.1$ ,  $b=4.7$ , bo'lsa,  $P = 2(a+b)h$  ifodaning son qiymatini toping

- A) 40:                      B) 400:                      C) 4:                      D) 36.1:                      E) 37.1

24. To'g'ri to'rtburchakning yuzi  $S$  ga, asosi  $a$  ga teng. Uning perimetrini topish uchun ifoda tuzing.

- A)  $\frac{S}{a} + a$ :                      B)  $\frac{S}{2a} + 2a$ :                      C)  $2\left[\frac{S}{a} + a\right]$ :                      D)  $\frac{S}{a} + a$ :                      E)  $\frac{S}{2a}$

25. Teng yonli uchburchakning perimetri  $P$  ga, asosining uzunligi  $a$  ga teng. Uchburchakning yon tomoni uzunligini topish uchun ifoda tuzing.

- A)  $2a-P$ :                      B)  $2P-a$ :                      C)  $P-a$ :                      D)  $\frac{P-a}{2}$ :                      E)  $P-2a$