**10−sinf I−variant**

1. kvadrat tenglama ildizlari uchun

tengliko`rinlibo`lsa, a ni toping.

A) 1 B) −3 C) −1 D) 7

2. Korxonaxom−ashyuoqimmatlashganisabablimaxsulotnarxi 20% gaoshirildi, biroqmijojlarsoni 20 % gakamayibketdi. Shundakorxonanarxniqanchadirfoizgakamaytiribmijozlarisonini 25% gaoshirishgaerishdi. Shundankeyinkorxonatushuminarxo`zgarmasdanoldingitushumgaqaraganda 8% gaoshganbo`lsa, yanginarxnechafoizgakamaytirilgan?

A)10 B) 20 C) 12 D) 4

3) { x/xϵN, x2< 32 } to’plamninechtausulbilanikkitakesishmaydiganqismto’plamlarbirlashmasiko’rinishidaifodalashmumkin?  
A) *5* B) *31* C) *32* D) *16*

4. tengsizlik yechimi bo`la oladigan tub sonlar nechta?

A) 3 B) 4 C) 2 D) 5

5. Berilganfunksiyagateskarifunksiyanianiqlang.

A) BC) D) aniqlab bo`lmaydi.

6. Ko`paytmanihisoblang.

A) 1/128 B) 1/16 C) 1/32 D) 1/64

7) Tenglamaning ildizini nimchoragi nechaga teng ?



A) 0,125 B) 0,5 C)0,25 D) 

8) Hisoblang:

A) − B) − C) D)

9) funksiyaning aniqlanish sohasini toping.

A)

B)

C)

D)

10) tenglamani butun yechimlar sonini toping. Bu yerda − a soniningbutunqismi.

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

11) x bo`lsa, kasrning qiymatini hisoblang.

A) 2− B) −2 C) D)

12) Agar f(g(x))= va f(x)=x−3 funksiyalar berilgan bo`lsa, g(x) funksiya ko`rinishini aniqlang.

A) (x−3)2 B) x2+12x+3

C) x2−12x−3 D) (x+3)2

13) Uchburchakningtomonlari 7 va 11 ga, uchinchitomoniningmedianasi gat eng.Uchburchakninguchunchitomonini toping.

A) 12 B) 14 C) 15 D) 16

14) Ta`lim muassasida barcha o`quvchilar kamida bitta ingliz yoki nemis tilida so`zlash oladilar. Ayrimlari ikkala tilni ham biladilar.O`quvchilarning 85%i ingliz tilini, 75%i nemis tilini biladilar. Ikkala tilni ham biladigan o`quvchilar barcha o`quvchilarning necha % ini tashkil etadi.

A) 50% B) 60% C) 70 % D) 65%

15) 7(kx−2)=7k+2(x−8) tenglama k ning qanday qiymatlarida ildizga ega bo`lmaydi?

A) (−∞; 2/7) B) (2/7; ∞) C) k= D)

16) tengsizlikniyeching.

A) B) C) D)

17) 3cos2x-3sin2x=0 trigonometrik tenglamani yeching.

A)

D)

18) ifodani soddalshtiring.

A) cosα B) 1 C) 2cosα D) 2sinα

19 ) Hisoblang: cos25ocos35ocos85o=

A) B) C) D)

20) Uchburchakning ikkita burchagi mos ravishda 38o va 52oga teng. Uchinchi burchagi uchidan tushirilgan bissektrisa va mediana orasidagi burchakni toping.

A) 10oB) 17o C) 7o D) 14o

21) Agar f(x+1) =7+3x funksiyauchun f (a)=2 tengliko`rinlibo`lsa, a ningqiymatini toping.

A) 10 B) 12 C) −2/3 D) 8

22) Beshta a1, a2, a3, a4, a5 tub sonlarayirmasi 6 gatengbo`lganarifmetikprogressiyanitashkilqiladi. 2a2+a3ni toping.

A) 31 B) 40 C) 39 D) 43

23) Agar tenglama haqiqiy yechimga ega bo`lsa, a+b ni toping.

A) 3 B) 6 C) 4 D) 2

24) Uchburchakningikkitomoni 12 va 13 smga, ularorasidagiburchakkosinusi ga teng bo`lsa,uning yuzini toping.

A) 70 B) 71 C) 72 D) 60

25) va funksiyalar umumiy uchga ega bo`lsa, p ning qiymatini toping.

A) 24 B) 12 C) 6 D) 18

**10−sinf II−variant**

1) Agar , , uch xonali natural sonlar yig’indisi 777 ga teng bo’lsa, 𝑏 + 𝑐 + 𝑑 ni toping.

A**)** 7 B)6 C)8 D)2

2) Birinchi quvurdan ikkinchi quvurga qaraganda ikki barobar ko’p suv oqadi.Ikkalasi birgalikda bo’sh hovuzni 12 soatda to’ldiradi.Birinchi quvur hovuzning uchdan bir qismini necha soatda to’ldiradi?

A) 9 B) 4 C) 12 D) 6

3) ( (((

tenglamaniqanoatlantiruvchi y natural sonni toping.

A)3 B)4 C)16 D)7

4) Agar a natural sonni 64 gabo’lgandabo’linma n, qoldiq n3gatengbo’lsa, a soniningengkattaqiymatini toping.

A) 64 B)136 C) 219 D)262

5) tengsizlikni yeching

A) x≤1,5 B) x C) x≥3 D) x≤−1

6) y= sin5x∙cos9x−cox5x∙sin9x funksiyaningengkichikmusbatdavrini toping.

A) 2π B) π C) π/2 D) 4π

7) Uchburchakning 6 va 8 gatengmedianalario’zaro 90oburchakostidakesishadi. Uchburchakninguchinchi

tomonigao’tkazilganmedianauzunligini toping.

A)10 B)5 C)15 D)20

8) Tog’riburchakliuchburchakningo’tkirburchagi 600ga, gipotenuzasigatushirilganbalandligi 18 gateng. Berilganuchburchakningkattakatetini toping.

A)  B)  C)36 D) 

9) Tengyonli trapetsiyaning diagonali sm ga teng va asosi bilan 15o li burchak tashkil qiladi. Trapetsiya yuzini toping.

A) 0,5 B) 0,75 C) 0,25 D) 1,5

10) Agar bo’lsa cos2𝛽 ning qiymatini toping.

A)−0.6 B) −0.8 C) 0.96 D) 0.28

11) log210lg8 dan katta bo`lmagan natural sonlar nechta?

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

12) y=kx2−4(k2−2k)x+2 parabolaning uchi x−3k=0 to`g`ri chiziqda bo`lsa, k=?

A) 4 B) −3 C) −4 D) 3

13) Aylananing AB va CD vatarlari E nuqtada kesishadi.AE=5sm, BE=2dm va EC=2,5sm bo`lsa, ED ninguzunligini toping.(sm)

A) 40 B) 3 C) 400 D) 4

14) tenglama yechimlari yig`indisini toping.

A) 7 B) 8 C) −7 D) 9

15) Akvariumningboyi 70sm, eni 40sm, balandligi 30sm. Akvariumdagisuvsathiyuqoridan 10 sm past bo`lishiuchununganechalitrsuvsolishkerak?

1. 560 B) 56 C) 84 D) 840

16) Agar

tenglama haqiqiy yechimga ega bo`lsa, a+b ni toping.

A) 3 B) 6 C) 4 D) 2

17) ifodani soddalashtiring.

A) 1+tgα B) 1 C) tg2α D) 2

18) ni hisoblang

A) 0,35 B) 350 C) 3,5 D) 35

19) Agar f(g(x))= va f(x)=x−3 funksiyalar berilgan bo`lsa, g(x) funksiya ko`rinishini aniqlang.

A) (x−3)2 B) x2+12x+3

C) x2−12x−3 D) (x+3)2

20) Uchburchakning ikki tomoni 10 va 16 ga , ular orasidagi burchak ga teng. Shu uchburchakka ichki chizilgan aylana radiusini toping.

A) 4 B) C) 3 D) 2

21)

A) 17 B) 134 C)25 D)50

22) Radiusi 6 ga teng bo`lgan doiradan markaziy burchagi ga teng bo`lgan doiraviy sektor qirqib olindi va unga aylana ichki chizildi, ya`ni aylana sektor tomonlariga va yoyiga urinadi. Shu aylanaga tasgqi chizilgan kvadrat yuzini aniqlang.

A) 10 B) 16 C) 8 D)12

23) , y = , x= sonlar uchun quyidagi munosabatlardan qaysi biri o`rinli?

A) y>x>z B) x>y>z C) x>z>y D) z>x>y

24) ABCD parallelogramda E nuqta AD tomonning o`rtasi, F nuqta CE to`g`ri chiziqqa B nuqtada tushurilgan perpendikularning asosi. Agar AB=2 va <BAF=55o bo`lsa, ABF uchburchak yuzini toping.

A) 5 sin55o B) 6 sin55o

C) 3 sin55o D) 4 sin55o

25)va ular orasidagi burchak bo`lsa, vektorning uzunligi topilsin.

A) 30 B) 14 C) D) 3