**11−sinf I−variant**

1) Agar f(g(x))= − x+13 bo`lsa, f(x) va g(x) to`g`ri chiziqlar orasidagi burchakni toping.

A) B) C) D) 0

2. a+b=−1 a+c=6 vab+c=1 bo`lsa,

 = ning son qiymatini toping.

A)45 B) 27 C) 100 D) 216

3. Ifodanisoddalashtiring. :

A) 0 B) 1+C) 1− D)

4. Bir savdogar 1 mеtrini 1200 tiyindan olgan matosini yuvib, kuritgandan so`ng 1800 tiyindan sotyapti. Mato yuvilib kuritilganidan so`ng 20 foizi qisqardi. Bularga ko`ra savdogar nеcha foiz foyda ko`radi?

A) 10 B) 15 C) 18 D) 20

5) tenglama a ning qanday qiymatlarida 3 ta haqiqiy yechimga ega bo`ladi.

A) a=3 B) (0;3) C) 1<a<3 D) a>3, a=0

6. Tenglamaniyeching:

A) [−2;∞) B) (−∞;−2]C) [−2;0] D) [2;∞)

7.Tenglamaniyeching:

A) πk; −arcctg4+πk; k

B) arccos0,8+2πk; k

C) πk; π−arcctg4+πk; k

D) π −arcctg4+πk; k

8) Asosi ga teng bo`lgan muntazam to`rtburchakli piramidaning uchidan o`tkazilgan kesma asos tomonini 2:4 nisbatda bo`ladi va asos tekisligi bilan 60o li burchakhosilqiladi. Piramidahajmini toping.

A) 6 B) C) 12 D)

9) Agar 2a =27, 3c=16 bo’lsa a ∙ 𝑐ningqiymatini toping.

A)10 B)13 C)11 D)12

10) *GH*kesmani O nuqta, G nuqtadanboshlabhisoblaganda, 5 : 7 kabi, *P* nuqtaesa 5:11 kabinisbatdabo’ladi.Ova*P*nuqtalarorasidagimasofa 30 smbo’lsa, *GH*kesmaninguzunligini toping.

A) 288 B) 18 C) 72 D) 324

11) Bitta tekislikda yotuvchi n ta turli tog`ri chiziq o`tkazilgan. Ularning ixtiyoriy ikkitasi parallel emas va ixtiyoriy uchtasi bitta nuqtadan o`tmaydi ,ya`ni bitta nuqtada kesishmaydi. Bu to`g`ri chiziqlar tekislikni 1276 qismga ajratadi. n ni aniqlang?

A) 51 B) 49 C) 50 D) 52

12) Radiusi 6 ga teng bo`lgan uchta aylana o`zaro tashqi urinishidan hosil bo`lgan egri chiziqli uchburchakka ichki chizilgan aylana radiusini toping.

A) B) 4C) 2−1 D) 1

13) ABCD tetraedrning D uchidagi barcha yassi burchaklari to`g`ri. Shu tetraedrda kub shunday ichki chizilganki, kubning bitta uchi D nuqtada, unga qarama−qarshi uchi esa ABC yoqda yotibdi. Agar DA=5, DB=6 va DC=10 bo`lsa, kub qirrasining uzunligini toping.

A) B) C) 2 D) 2

14) funksiya uchun f `(x)=0 bo`lsa x ni toping.

A) 5va7 B) −7va 5 C) −5 va 7 D) −7 va −5

15) funksiyaning aniqlanish sohasini toping.

A) B)

C) D)

16) Perimetri 4 gao`tkirburchagi 30oga vashuburchakqarshisidagitomoni ga teng bo`lgan uchburchakka ichki chizlgan aylana radiusini toping.

A) B) C) D)

17) y=− funksiyaning boshlang`ich funksiyasini toping.

A) 3−

B) 3−

C) −

D) 3−

18) Agar bo`lsa, ni toping.

A) 1+b B) 3(1−a) C) 3(1−a)(1+b) D)

19) f(x)=70cosxcos6x uchunboshlang`ichfunksiya toping.

A) 7cos5x−5cos7x+c B) −7cos5x−5cos7x+cC) 7sin5x+5sin7x+C D) 7sin5x−5sin7x+c

20) y=6sin2x+sin12x funksiyaninghosilasini toping.

A) 24sin5xcos7x B) −24sin7xcos5xC) 24cos7xcos5x D) 24sin7xsin5x

21) tengsizlikniyeching.

A) B) C) D)

22) 3cos2x-3sin2x=0 trigonometrik tenglamani yeching.

A)

D)

23) ifodani soddalshtiring.

A) cosα B) 1 C) 2cosα D) 2sinα

24) ni hisoblang.

A) −13 B) 13 C) −12 D) 12

25) Poyezd 3 minutda 7 kilometrmasofani , motosikl 5 minutda 7 kilometrmasofanibosibo`tdi. Mototsikltezligipoyezdtezliginingnecha % initashkilqiladi?

A) 60% B) 70% C) 61% D)

**11−sinf 2-variant**

1) Dengiz suvi 5% tuzga ega. 80 kg dengiz suviga qancha chuchuk suv qo`shilsa, undagi tuzning miqdori 4% ga aylanadi?

A) 20 B) 24 C) 18 D) 12

2)Ikkitatraktorbirgalikdaishlabyermaydonini 6 soatdahaydabbo`ladi. Agar 1−traktorning yolg`izo`ziishlasa, bumaydonni 2−traktorchiga nisbatan 5 soatavvalhaydabbo`ladi. Bu maydonniharqaysitraktorchiningyolg`izo`zinechasoatdahaydabbo`ladi?

A) 0,5; 5,5 B) 7; 2C) 6,5; 1,5 D) 10;15

3) sinx= tenglama yechimga ega bo`ladigan x ning butun qiymatlari yig`indisini toping ?

A) 2 B) 5 C) 3 D) 0

4)Hisoblang. 2+11+101+1001+…+

A) B) C) D)
5) Ifodani eng katta qiymatini toping.

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

6) ushbu tenglamalar sistemasi nechta yechimga ega

A) 0 B) 2 C) 4 D) 1

7) Hisoblang: 0,4+0,04+0,004+0,0004+....

A) 4/5 B) 2/3 C) 0,(4) D) 2,25

8) Geometrik progressiyaning to`rtinchi va ikkinchi hadlari mos ravishda 6 va 2 ga teng bo`lsa , quyida keltirilganlardan qaysi biri geometrik progressiyaning birinchi hadi bo`la oladi?

A) B) − C) D) −

9)ABCD trapetsiyaning AD va BC asoslari mos ravishda 36 va 3 ga teng. Agar ACD uchburchakning yuzi 12 ga teng bo`lsa,berilgan trapetsiya yuzini toping.

A) 9 B) 13 C) 18 D) 16

10)Qavariqnburchakningdiagonallarisoni 85 tadankamemasva 92 tadanko‘pemas. Shuko`pburchakningichkiburchaklariyig`indisini toping.

A) 2340o B) 1800o

C) 2400o D) 2700o

11) AD va BC asosli to`g`ri burchakli ABCD trapetsiyaga aylana ichki chizilgan Agar Aylana markazi trapetsiyaning C va D uchlaridan mos ravishda 2 va 4 masofada bo`lsa, trapetsiya yuzini toping.

A) 16,6 B) 15 C) 14,4 D) 13,5

12) natural sonning kvadratini 3 ga bo`lganda qanday qoldiqlarga ega bo`lishi mumkin.

A) 0;1 B) 1;2 C) 0;2 D) 0;1;2

13) a ningqandayqiymatlarida

 va parabolalar uchlari OX o`qidan yuqorida yotmaydi?

A) B) C) D)

14)Yuzasi ga teng va yon tomoni asosi bilan burchak hosil qilgan teng yonli uchburchakning perimetrini toping.

A) B) C) D)

15) O`tkirburchagi ga teng bo`lgan romb kichik diagonalini diametr qilib radiusi 3 ga teng bo`lgan aylana chizilgan.Romb o`tkir burchaklariichidauningikkitatomonigavakattaaylanagaurinuvchidoiralaryuzalariyig`indisini toping.

A) 4) B) )C) ) D) 8)

16) vektorning unga yo`nalishdosh bo`lgan birlik vector bilan skalyar ko`paytmasini toping.

A) 13 B) 0 C) 5 D) −5

17) to`plamning nechta qism to`plamlari mavjud.

A) 32 B) 64 C) 128 D) 256

18) Agar sin∙cos=− va πcos7π<α< bo`lsa, tgα ni toping.

A) B) C) D) 1,(3)

19) tenglamani ildizlari ko`paytmasini toping.

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20) To`g`rito`rtburchakningsimmetriyao`qlari x=6 va y=4 bo`lib, uchlaridanbiri A(10;6) bo`lsa, shuto`g`rito`rtburchakningperimetrini toping.

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21) y = funksiyaning x=1 nuqtadagi burchak koeffitsiyentini toping.

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22) tengsizlikning nechta butun yechimi bor?

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23) tengsizlikni yeching.

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24) arctg3 +arctg2+arctg1=

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25) Agar arifmetik progressiyada bo`lsa, ayirmani toping.

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