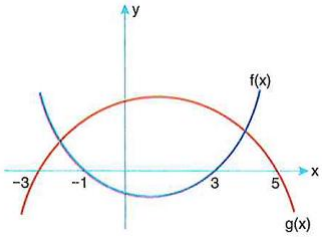
Test

1. x^2-(2k+1)x+k-4=0 tenglama ildizlari x_1 va x_2 bo`lsa, $\frac{1}{x_1}+\frac{1}{x_2}<1$ tengsizlikning butun yechimlari sonini toping.
A) 6 B) 7 C) 8 D) 9

2. Grafikdan foydalanib $f(x)\cdot g(x)\geq 0$ tengsizlikning [-3;5] oraliqdagi butun yechimlari sonini toping.

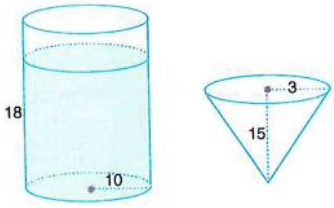


A) 2 B) 3 C) 4 D) 6

3. a_n ketma-ketlikda a_1=1 va $a_{n+1}=a_n$+2n bo`lsa, a_{10} ning qiymatini toping. A) 71 B) 81 C) 91 D) 101

4. $\log_3(tg15^0)-\log_3(1-tg^2 15^0)=\log_3 x$ tenglamani bajaring. $A)\ \sqrt{3}\ \ B)\ \frac{\sqrt{3}}{2}\ \ C)\frac{\sqrt{3}}{3}\ \ D)\frac{\sqrt{3}}{6}$

5. Silindrda 18 sm balandlikdagi suv yondagi konuslarga quyilganda nechta konus idish kerak bo`ladi

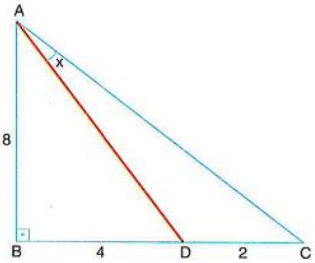


A) 37 B) 38 C) 39 D) 40

6. x^2+(2n-3)x+2m-3=0 tenglama ildizlari x_1 va x_2 uchun $x_1+\frac{3}{x_2}=m$ bo`lsa, n ning qiymatini toping.
A) -0,25 B) -0,5 C) 0,5 D) 1

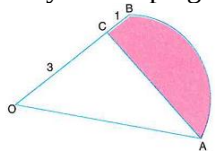
7. a_n arifmetik progressiyada a_5+a_{13}=16 bo`lsa, $a_2+a_9+a_{16}$ ning qiymatini toping. A) 18 B) 20 C) 24 D) 32

8. Berilgan ma`lumotlarga ko`ra tgx ning qiymatini toping.



A) 1/11 B) 2/11 C) 3/11 D) 1/8

9. O markazli aylana AB yoy uzunligi 4π/3 bo`lsa, bo`yalgan soha yuzini toping

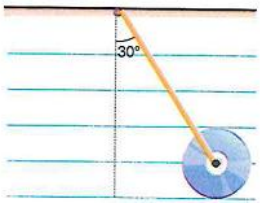


A) 8π B) 8π/3 C) $\frac{8\pi}{3}-3\sqrt{3}$ D) 2π+2$\sqrt{3}$

10. P(x) va Q(x) ko`phadlar uchun $P(x)=x^2+x+3$; $Q(x)=ax^3+bx^2+cx+d$ bo`lib P(x-1)=Q(x+1) bo`lsa, b+d ning qiymatini toping. A) 5 B) 6 C) 7 D) 8

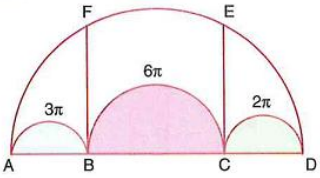
11. $\frac{1}{1-cosx}-\frac{1}{1+cosx}=\frac{4}{3}$ tenglamaning birinchi chorakdagi ildizini aniqlang. A) 10 B) 30 C) 45 D) 60

12. Rasmda 8 m uzunlikdagi ipga doiraviy disk ilinga. Parallel to`g`ri chiziqlar orasidagi masofalar teng bo`lsa, doiraviy disk yuzini aniqlang



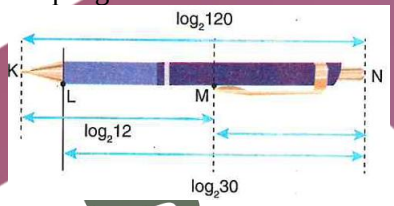
A) 3π B) 4π C) 5π D) 6π

13. Rasmda AB;BC;CD yarim aylanalarning yoy uzunliklari berilgan AD esa katta aylana diametric. BF:CE nisbatni aniqlang.



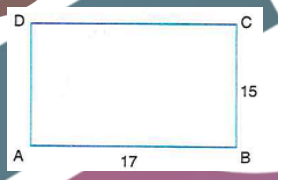
A) $\frac{\sqrt{2}}{3}$ $B)\frac{2\sqrt{6}}{3}$ $C)\frac{2\sqrt{3}}{3}$ $D)$ 2

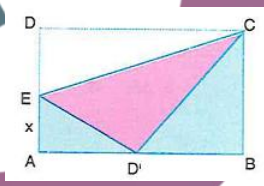
14. Rasmda ruchkaning bo`laklari va uning uzunliklari berilgan. Berilgan uzunliklarga ko`ra LM bo`lak uzunligini aniqlang.



A) $\log_2 5$ $B)$ $\log_2 3$ $C)$ $\log_2 2{,}5$ $D)$ 2

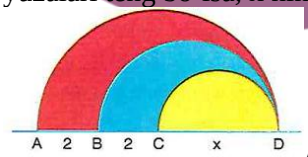
15. Birinchi shaklning D nuqtasi D` nuqtaga kelgan bo`lsa, x ning qiymatini toping.





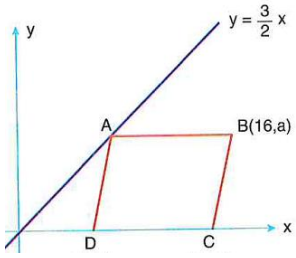
A) 17/5 B) 4
C) 24/5
D) 27/5

16. Yarim aylanalar berilgan bo`lib, Sariq va qizil maydonlar yuzalari teng bo`lsa, x ning qiymatini toping.



A) 4 B) 5 C) 6 D) 8

17. rasmda parallelogram berilgan bo`lib D(2;0) va C(12;0) koordinatalarga ega, bunga ko`ra parallelogram yuzini toping.



A) 40 B) 60 C) 80 D) 90

18. $\frac{a+b-2}{a+b+1}+\frac{a+b+8}{a+b+2}=2$ bo`lsa, a:b ning qiymatini toping.
A) -2 B) -1 C) 0 D) 1

19. $x^{\log_3 x}=27x^2$ tenglama ildizlari ko`paytmasini toping.
A) 1 B) 3 C) 9 D) 18