1. $tg4x = -\frac{1}{2}$ bo'lsa, $ctgx - tgx - 2tg2x$ ni toping

A) −8 B) −5 C) −6 D) −7

2. $tg4x = -\frac{1}{3}$ bo'lsa, $ctgx - tgx - 2tg2x$ ni toping

A) −12 B) −5 C) −6 D) −7

3. $tg4x = -\frac{2}{3}$ bo'lsa, $ctgx - tgx - 2tg2x$ ni toping

A) −6 B) −5 C) −8 D) −7

4. $ctg4x = -\frac{1}{2}$ bo'lsa, $ctgx - tgx - 2tg2x$ ni toping

A) −2 B) −5 C) −8 D) −7

5. $tg4x = -\frac{2}{5}$ bo'lsa, $ctgx - tgx - 2tg2x$ ni toping

A) −10 B) −5 C) −8 D) −7

6. $f(x) = cos^4x + sin^4x$agar $sin2x = \frac{2}{3}$ bo'lsa. $f(x)$ ni toping?

A) $\frac{7}{9}$ B) −5 C) −8 D) −7

7. $ctg70 + 4cos70$ ni hisoblang?

A) $\sqrt{3}$ B) −5 C) −8 D) −7

8. $cos3 + \cos\{\pi\}$ ni hisoblang?

A) 0 B) −5 C) −8 D) −7

9. $sin3 - \sin\{\pi\}$ ni hisoblang?

A) 0 B) −5 C) −8 D) −7

10. Agar $sinx + cosx = \frac{1}{5}$ bo'lsa, $tg\frac{x}{2}$ ni toping?

A) $-\frac{1}{3}; 2$ B) −5 C) −8 D) −7

11. $\frac{sinx-siny}{1-sinxsiny}$ ifodaning eng kichik qiymatini toping?

A) −1 B) −5 C) −8 D) −7

12. Hisoblang $tg9 + tg15 - tg27 - ctg27 + ctg15 + ctg9$

A) 8 B) −5 C) −8 D) −7

13. $f(x) = 3cosx - 4sinx + 3$ qiymatlar soxasini toping ?

A) $[-2; 8]$ B) −5 C) −8 D) −7

14. Hisoblang $\cos 20 + 2sin^2 55 - \sqrt{2}sin65$?

A) 1 B) −5 C) −8 D) −7

15. Hisoblang $\frac{1}{sin10} - 4sin70$?

A) 2 B) −5 C) −8 D) −7

16. Hisoblang $\sqrt{\frac{1}{2} - \frac{1}{2}\sqrt{\frac{1}{2} + \frac{1}{2}cosx}}$ $\pi < x < 2\pi$

A) $cos\frac{x}{4}$ B)−5 C)−8 D)−7

17. Hisoblang $\sqrt{\frac{1}{2} + \frac{1}{2}\sqrt{\frac{1}{2} + \frac{1}{2}cos2x}}$ $\frac{3\pi}{2} < x < 2\pi$

A) $-cos\frac{x}{2}$ B)−5 C)−8 D)−7

18. $f(x) = \frac{x^2}{\sqrt{1+x^2}}$ bo'lsa, $f(tgx) = ?$

A)$f(tgx) = sinxtgx$ B)−5 C)−8 D)−7

19. $f(x) = \frac{x^2}{\sqrt{1+x^2}}$ bo'lsa , $f(ctgx) = ?$

A)$f(ctgx) = cosxctgx$ B)−5 C)−8 D)−7

20. Soddalashtiring $x, y \in (\frac{3\pi}{2}; 2\pi)$

$$\frac{tg(x+y) - tgx - tgy}{tgxtg(x+y)}$$

A) tgy B)−5 C)−8 D)−7

21. $3 - 4sin^2x$, ifodani ko'paytma ko'rinishiga keltiring.

A) $4\cos(30 + x)\cos(30 - x), 4sin(60 + x)\sin(60 - x)$ B)−5 C)−8 D)−7

22. $4sin^2x - 1$?

A) $4sin(x - 30)\sin(x + 30)$ B)−5 C)−8 D)−7

23. $4cos^2$x-1, ifodani ko'paytma ko'rinishiga keltiring.

A) $4sin(60 - x)\sin(60 + x)$ B)−5 C)−8 D)−7

24. $2sinx^2x - 1$, ifodani ko'paytma ko'rinishiga keltiring.

A) $-2sin(45 - x)\sin(45 + x)$ B)−5 C)−8 D)−7

25. Hisoblang $cos22 + 2sin^256 - \sqrt{2}sin67$

A) 1 B)−5 C)−8 D)−7

26. Hisoblang $cos24 + 2sin^257 - \sqrt{2}sin69$

A) 1 B)−5 C)−8 D)−7

27. $cos26 + 2sin^258 - \sqrt{2}sin71$

A) 1 B)−5 C)−8 D)−7

28. $cos28 + 2sin^259 - \sqrt{2}sin73 = ?$

A) 1 B)−5 C)−8 D)−7

29. $\begin{cases} tgx + ctgy = 3 \\ sinycosx = 0.2 \end{cases}$ bo'lsa , $\cos(x - y) = ?$

A) 0.6 B)−5 C)−8 D)−7

30. $\begin{cases} tgx + ctgy = 4 \\ sinycosx = 0.2 \end{cases}$ bo'lsa , $\cos(x - y) = ?$

A) 0.8 B)−5 C)−8 D)−7

31. $\begin{cases} tgx + ctgy = -3 \\ sinycosx = 0.2 \end{cases}$ bo'lsa , $\cos(x - y) = ?$

A) -0.6 B)−5 C)−8 D)−7

32. $\begin{cases} tgx + ctgy = 3 \\ sinycosx = -0.2 \end{cases}$ bo'lsa , $\cos(x - y) = ?$

A) -0.6 B)−5 C)−8 D)−7

33. $\begin{cases} tgx + ctgy = 2 \\ sinycosx = 0.2 \end{cases}$ bo'lsa , $\cos(x - y) = ?$

A) 0.4 B)−5 C)−8 D)−7

34. Agar $\sin\left(\frac{\pi}{4} - x\right) = \sqrt{\frac{3}{8}}$ bo'lsa $sin2x$ ni toping ?

A) 0.25 B)−5 C)−8 D)−7

35. Agar $\sin\left(\frac{\pi}{4} - x\right) = \frac{1}{2}$ bo'lsa $sin2x$ ni toping ?

A) 0.5 B)−5 C)−8 D)−7

36. Agar $\sin\left(\frac{\pi}{4} - x\right) = \sqrt{\frac{1}{8}}$ bo'lsa $sin2x$ ni toping ?

A) 0.75 B)−5 C)−8 D)−7

37. Agar $\cos\left(\frac{\pi}{4} - x\right) = \sqrt{\frac{3}{8}}$ bo'lsa $sin2x$ ni toping

A) -0.25 B) −5 C)−8 D)−7

38. Agar $\cos\left(\frac{\pi}{4} - x\right) = \sqrt{\frac{1}{8}}$ bo'lsa $sin2x$ ni toping

A) -0.75 B)−5 C)−8 D)−7

39. $tgx = -4$ bo'lsa , $\frac{3cos2x-2}{2-9cos^2x}$ ni toping ?

A) -3.16 B)−5 C)−8 D)−7

40. $tgx = -4$ bo'lsa , $\frac{2cos2x-3}{2-9cos^2x}$ ni toping ?

A) -3,24 B)−5 C)−8 D)−7

41. $tgx = -2$ bo'lsa , $\frac{2cos2x-1}{1-3cos^2x}$ ni toping ?

A) -5.5 B)−5 C)−8 D)−7

42. Yig'indini hisoblang $tg30 + tg^2 30 + tg^3 30 + \cdots = ?$

A)$\frac{\sqrt{3}+1}{2}$ B)−5 C)−8 D)−7

43. Yig'indini hisoblang $ctg60 + ctg^2 60 + ctg^3 60 + \cdots = ?$

A)$\frac{\sqrt{3}+1}{2}$ B)−5 C)−8 D)−7

44. Yig'indini hisoblang $tg60 + tg^2 60 + tg^3 60 + \cdots = ?$

A) $\emptyset$ B)−5 C)−8 D)−7

45. Yig'indini hisoblang $ctg30 + ctg^2 30 + ctg^3 30 + \cdots = ?$

A)$\emptyset$ B)−5 C)−8 D)−7

46. $f(x) = 7x^2 - 4x + 5$ bo'lsa , $f(cosx) = ?$

A)$12 - 4cosx - 7sin^2 x$ B)−5 C)−8 D)−7

47. $f(x) = 7x^2 - 4x - 5$ bo'lsa , $f(cosx) = ?$

A)$2 - 4cosx - 7sin^2 x$ B)−5 C)−8

48. $f(x) = 7x^2 + 4x + 5$ bo'lsa , $f(cosx) = ?$

A) $12 + 4cosx - 7sin^2 x$ B)−5 C)−8 D)−7

49. $f(x) = 7x^2 + 4x - 5$ bo'lsa , $f(cosx) = ?$

A)$2 + 4cosx - 7sin^2 x$ B)−5 C)−8

50. $f(x) = 7x^2 - x - 5$ bo'lsa , $f(cosx) = ?$

A) $2 - cosx - 7sin^2 x$ B)−5 C)−8

51. $\begin{cases} y = x^3 \\ y = cosx \end{cases}$ tenglamalar sistemasi nechta yechimga ega?

A)1 B)−5 C)−8 D)−7

52. $\begin{cases} y = 2x^3 \\ y = cosx \end{cases}$ tenglamalar sistemasi nechta yechimga ega?

A)1 B)−5 C)−8 D)−7

53. $\begin{cases} y = 3x^3 \\ y = cosx \end{cases}$ tenglamalar sistemasi nechta yechimga ega?

A)1 B)−5 C)−8 D)−7

54. $\begin{cases} y = -2x^3 \\ y = cosx \end{cases}$ tenglamalar sistemasi nechta yechimga ega?

A)1 B)−5 C)−8 D)−7

55. Juft sondagi hadlardan tashkil topgan arifmetik progressiyaning ayirmasi 3 ga teng.Toq nomerli va juft nomerli hadlar yig'indisi mos ravishda 12 va 24 ga teng. Uning barcha hadlari nechta ?

A) 8 B)−5 C)−8 D)−7

56. Juft sondagi hadlardan tashkil topgan arifmetik progressiyaning ayirmasi 3 ga teng.Toq nomerli va juft nomerli hadlar yig'indisi mos ravishda 14 va 26 ga teng. Uning barcha hadlari nechta ?

A) 8 B)−5 C)−8 D)−7

57. Arifmetik progressiyaning o'ninchi hadi 7 , yettinchi hadi 10 ga teng. 20-hadini toping?

A)-3 B)−5 C)−8 D)−7

58. Arifmetik progressiyaning o'ninchi hadi 7 , yettinchi hadi 10 ga teng. 1-hadini toping?

A)16 B)−5 C)−8 D)−7

59. Arifmetik progressiyaning o'ninchi hadi 7 , yettinchi hadi 10 ga teng. 2-hadini toping?

A)15 B)−5 C)−8 D)−7

60. Arifmetik progressiyaning o'ninchi hadi 7 , yettinchi hadi 10 ga teng. 3-hadini toping?

A)14 B)−5 C)−8 D)−7

61. Arifmetik progressiyada $a_3 + a_7 + a_{10} + a_{12} + a_{15} + a_{19} = 81$ bo'lsa $a_5 + a_{17} = ?$

A)27 B)−5 C)−8 D)−7

62. Arifmetik progressiyada $\begin{cases} a_2 + a_{17} = 4 \\ a_{19} - a_{17} = 5 \end{cases}$ bo'lsa dastlabki 20-ta hadini yig'indisini toping?

A)90 B)−5 C)−8 D)−7

63. $a_1, a_2, a_3, \ldots$ $b_1, b_2, b_3, \ldots$ arifmetik progressiya hadlari uchun

$a_1 = b_1 = 3$ $a_4 = b_5 \neq 3$ $\frac{a_2 - a_1}{b_2 - b_1} = ?$

A)$\frac{4}{3}$ B)−5 C)−8 D)−7

64. Cheksiz kamayuvchi geometric progressiyaning barcha hadlari yig'indisi $f(x) = x^3 + 3x - 9$ Funksiyaning [-2;3] kesmadagi eng katta qiymatiga va $b_1 - b_2 = f'(0)$ ga teng bo'lsa, cheksiz kamayuvchi geometric progressiyaning maxrajini toping? A)$\frac{2}{3}$ B)−5 C)−8 D)−7

65. Arifmetik progressiya uchun $a_1 = 2.5$ $b_1 = 7.5$ va $a_{100} + b_{100} = 10$

$a_1 + b_1, a_2 + b_2, \ldots, a_n + b_n$ ketma-ketlikning dastlabki 100 ta hadi yig'indisini toping?

A)1000 B)−5 C)−8 D)−7

66. Arifmetik progressiya uchun $a_1 = 2.5$ $b_1 = 7.5$ va $a_{100} + b_{100} = 10$

$a_1 + b_1, a_2 + b_2, \ldots, a_n + b_n$ ketma-ketlikning dastlabki 10 ta hadi yig'indisini toping?

A)100 B)−5 C)−8 D)−7

67. Arifmetik progressiya uchun $a_1 = 2.5$ $b_1 = 7.5$ va $a_{100} + b_{100} = 10$

$a_1 + b_1, a_2 + b_2, \ldots, a_n + b_n$ ketma-ketlikning dastlabki 200 ta hadi yig'indisini toping?

A) 2000 B) −5 C) −8 D) −7

68. Arifmetik progressiya uchun $a_1 = 2.5$ $b_1 = 7.5$ va $a_{100} + b_{100} = 10$

$a_1 + b_1, a_2 + b_2, \ldots, a_n + b_n$ ketma-ketlikning dastlabki 300 ta hadi yig'indisini toping?

A) 3000 B) −5 C) −8 D) −7

69. Musbat sonlardan tashkil topgan $a_1, a_2, \ldots$ ketma ketligi uchun $a_1 = 1$ va barcha natural n-da $a_{n+2} = a_n * a_{n+1}$ shart bajarilsin. Ketma ketlikning 100 - hadini toping ?

A) 1 B) −5 C) −8 D) −7

70. a, b, c manfiy butun son uchun c – butun $a = b + 2$, $a + b - c = 13$, bo'lsa , c ning eng katta qiymatini toping?

A) −17 B) −5 C) −8 D) −7

71. $a + b + c = -7$, bo'lsa $\left(\frac{1}{a+b} + \frac{1}{b+c} + \frac{1}{a+c}\right) = 1$, bo'lsa $a + b + c - \left(\frac{a}{b+c} + \frac{b}{c+a} + \frac{c}{a+b}\right)$ ni toping ?

A) −3 B) −5 C) −8 D) −7

72. Bironta sonning kvadratini 7 ga bo'lganda qanday qoldiq qolishi mumkin?

A) 0,1,2,4 B) −5 C) −8 D) −7

73. $g(x) = x^{sin2x}$ bo'lsa, $g'\left(\frac{\pi}{4}\right) = ?$

A) 1 B) −5 C) −8 D) −7

74. $\frac{1}{2} + \frac{1}{2+4} + \frac{1}{2+4+6} + \cdots + \frac{1}{2+4+6+\cdots+24} = ?$

A) $\frac{12}{13}$ B) −5 C) −8 D) −7

75. $f(x) = x^3 + 2ax^2 + 3bx + 8$, bo'lsa $f''(3) = 22$, $a = ?$

A) 1 B) −5 C) −8 D) −7

76. Kvadratga 2 ta aylana ichki chizilgan radiusi 1 ga teng bo'lgan 1-aylana kvadratning 2 ta qo'shni tomoniga urinadi.Radiusi 3 ga bo'lgan qolgan 2 – tomonga va 1 – aylanaga urinadi. Kvadratning diagonalini toping?

A) $2(2 + 2\sqrt{2})$ B) −5 C) −8 D) −7

77. $cos9x = 4cosx$, bo'lsa $(4cos^2 3x - 3)(4cos^2 x - 3)$ ni toping ?

A) 4 B) −5 C) −8 D) −7

78. x = 1 bo'lsa, $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)} + \frac{b^2(x-a)(x-c)}{(b-a)(b-c)} + \frac{c^2(x-a)(x-b)}{(c-a)(c-b)} = ?$

A) 1 B) −5 C) −8 D) −7

79. $g(x)$ berilgan (a, b) intervalda va differensiallanuvchi bo'lsa $(g(x))^{-1}$ funksiyaning (a, b) intervalida hosilasini toping?

A) $-(g(x))^{-2} g'(x)$ B) −5 C) −8 D) −7

80. $g(x)$ berilgan (a, b) intervalda va differensiallanuvchi bo'lsa $(g(x))^{-2}$ funksiyaning (a, b) intervalida hosilasini toping?

A) $-2(g(x))^{-3} g'(x)$ B) −5 C) −8 D) −7

81. $ab + bc = ac$, bo'lsa $a^2 + b^2 + c^2 = 4$ $|a - b + c|$ ni toping?

A) 2 B) −5 C) −8 D) −7

82. $xy = a^2$, bo'lsa $\frac{x(y-a)^2 - y(x-a)^2}{x(y-a) - y(x-a)}$ ni toping?

A) 0 B) −5 C) −8 D) −7

83. Agar 0 ga teng bo'lmagan haqiqiy sonlar uchun $x + y + z = xyz$ va $x^2 = yz$ shartlarni qanoatlantirsa x^2 ning eng kichik qiymatini toping ?

A) 3 B) −5 C) −8 D) −7

84. Agar 0 ga teng bo'lmagan haqiqiy sonlar uchun $x + y + z = xyz$ va $x^2 = yz$ shartlarni qanoatlantirsa x ning eng kichik qiymatini toping ?

A) $-\sqrt{3}$ B) −5 C) −8 D) −7

85. $a + x = y$ bo'lsa, $(a^2 - y^2 - x^2 + 2xy) : \frac{a+y-x}{a+y+x}$ ni toping ?

A) 0 B) −5 C) −8 D) −7

86. $\frac{(a-3)^2}{a}$ ifoda natural qiymat qabul qiluvchi barcha $a \in N$ sonlarni toping ?

A) $a \in 1,9$ B) −5 C) −8 D) −7

87. $\frac{(a-3)^2}{a}$ ifoda natural qiymat qabul qiluvchi barcha $a \in N$ sonlarni yig'indisini toping ?

A) 10 B) −5 C) −8 D) −7

88. $\frac{2x-y}{x(x-y)} - \frac{y}{x(x-y)}$ ifodani aniqlash soxasini toping ?

A) $\{(x, y) | x \in R, y \in R, x \neq 0, y \neq x\}$ B) −5 C) −8 D) −7

$\sqrt{x+2} + x - 4 \leq 6$ tengsizlikning butun sondagi yechimlar yig'indisini toping ?

A) 25 B) −5 C) −8 D) −7

89. $\frac{|x+3|+x}{x+2} > 1$ tengsizlikni nechta manfiy butun ildizi bor?

A) 2 ta B) −5 C) −8 D) −7

90. $\frac{|x+2|+x}{x+1} > 1$ tengsizlikni nechta manfiy butun ildizi bor?

A) 1 ta B) −5 C) −8 D) −7

91. $\frac{|x+4|+x}{x+3} > 1$ tengsizlikni nechta manfiy butun ildizi bor?

A) 3 ta B) −5 C) −8 D) −7

92. Agar $\frac{mn}{n^2+12m^2} = \frac{1}{7}$ bo'lsa, $\frac{3mn}{2n^2-5m^2} = ?$

A) $\frac{9}{13}$ yoki $\frac{4}{9}$ B) −5 C) −8 D) −7

93. $x^2 > 17$ tengsizlikning eng katta manfiy va eng kichik musbat butun qiymatlari ko'paytmasini toping?

A) −25 B) −5 C) −8 D) −7

94. $x^2 < 31$ ning nechta butun yechimi bor?

A) 11 ta B) −5 C) −8 D) −7

95. $\frac{x^2+x-30}{|x-5|+1} \leq 0$ tengsizlikning natural sonlardan iborat yechimlari yig'indisini toping?

A) 15 B) −5 C) −8 D) −7

96. $\frac{x^2+x-42}{|x-5|+1} \leq 0$ tengsizlikning natural sonlardan iborat yechimlari yig'indisini toping?

A) 21 B) −5 C) −8 D) −7

97. $\frac{x^2+x-20}{|x-3|+1} \leq 0$ tengsizlikning natural sonlardan iborat yechimlari yig'indisini toping?

A) 10 B) −5 C) −8 D) −7

98. $\frac{x^2+x-12}{|x-2|+1} \leq 0$ tengsizlikning natural sonlardan iborat yechimlari yig'indisini toping?

A) 6 B) −5 C) −8 D) −7

99. $\frac{x^2+x-56}{|x-4|+1} \leq 0$ tengsizlikning natural sonlardan iborat yechimlari yig'indisini toping?

A) 28 B) −5 C) −8 D) −7

100. 10 ta o'quvchi bor. Ularni 3 tadan qilib necha xil usul bilan gurux qilish mumkin?

A) 120 B) 130 C) 80 C) 16

101. 8-mart bayrami 10 ta o'gil bola o'quvchi 8 ta qizga xar biri 1 tadan sovg'a berdi va xamma qizlar 5 tadan sovg'a olishdi. Guruhda nechta qiz bor?

A) 16 B) 130 C) 80 C) 16

102. 10 ta pochtachi 8 ta qutiga har biri 1 tadan hat tashadi. Har bir qutida 5 tadan hat bo'lsa, nechta quti bor ?

A) 16 B) 130 C) 80 C) 16

103. Aloqa binosida 50 ta kompyuter bor. Ularni bir biriga ulash davomida 8 ta sim chiqsa kompyuterlarni ulash uchun nechta sim kerak ?

A)200 B)130 C)80 C)16

104. 10 ta kitob bor. Ularni 3 ta dan qilib sovg'a tariqasida necha xil usulda guruxlash mumkin ?

A)120 B)130 C)80 C)16

105. 10 ta gul bor ularni 3 tadan qilib necha xil usul bilan guldasta qilish mumkin ?

A)120 B)130 C)80 C)16

106. 9 ta xatni 9 xil joyga 2 ta odam necha xil usul bilan tarqatadi?

A)512 B)130 C)80 C)16

107. Maktab xovlisida 1006 ta atirgul ekilgan Samandar barcha atirgullarni yarmini Diyora xam barchasini yarmini suv quyib sug'ordi. Bunda 3 ta atirgul ham Diyora ham Samandar tomondan sug'orildi. Nechta atirgul sug'orilmay qoldi ?

A)3 B)130 C)80 C)16

108. 3462 sonini raqamlar o'zgarmagan xolda. Necha xil usul bilan yozish mumkin.

A)24 B)130 C)80 C)16

109. Raketa so'zidan nechta turli so'z yozish mumkin?

A) 360 B) 130 C) 80 C) 16

110. 5498 sonining raqamlaridan foydalanib nechta to'rt xonali son tuzish mumkin ?

A) 24 B) 130 C) 80 C) 16

111. 1 , 2 , 3, … , 9 gacha raqamlardan nechta to'rt xonali son tuzish mumkin (raqamlardan faqat 1 marta foydalanish mumkin)

A) 3024 B) 130 C) 80 C) 16

112. Basketbol musobaqasida 10 ta odam bor 5 tadan qilib 2 ta guruhni necha xil usul bilan yasah mumkin?

A) 252 B) 130 C) 80 C) 16

113. 30 ta O'quvchi bor sinfda boshliq yordamchi va kotib necha xil usul bilan saylash mumkin?

A) 24360 B) 130 C) 80 C) 16

114. Bir kunlik dars jadvalda 3 ta turli fan bor 11 ta fanni xuddi shunday qilib necha xil usul bilan yaratish mumkin?

A) 990 B) 130 C) 80 C) 16

115. $a, b \varepsilon R$ $[a] = [b]$ $a - b = ?$ $[a]$ – butun qism degani

A) $(-1;1)$ B) 130 C) 80 C) 16

116. a va b sonlar berilgan. $a^2 < a$, $b > 1$ bo'lsa quydagilardan qaysi biri o'rinli?

A) $ab > a$ B) 130 C) 80 C) 16

117. Agar P soni 3 dan katta tub son bo'lsa quydagilarni qaysi biriga $P^2 - 1$ qoldiqsiz bo'linadi?

A) 6 B) 130 C) 80 C) 16

118. x ning qanday qiymatlarida $1; 2(x-1); 4(x-1)^2$ cheksiz kamayuvchi geometric progressiya bo'ladi?

A) $(0.5; 1) \cup (1; 1.5)$ B) 130 C) 80 C) 16

119. n ning qanday qiymatlarida $2^n - 1$ 7 ga bo'linadi?

A) 3 va 6 B) 130 C) 80 C) 16

120. Ko'paytmasi 7920 ga teng bo'lgan 4 ta ketma-ket natural sonlar yig'indisini toping?

A) 38 B) 130 C) 80 C) 16

121. $\frac{1}{2} + \frac{1}{2+4} + \frac{1}{2+4+6} + \cdots + \frac{1}{2+4+\cdots+20}$ hisoblang?

A) $\frac{10}{11}$ B) 130 C) 80 C) 16

122. Ko'paytmasi 3192 ga teng bo'lgan 2 ta ketma-ket natural sonlar yig'indisi toping?

A) 113 B) 130 C) 80 C) 16

$P(x) = 4x^2+20x+25$, $Q(x) = x^3-3x^2+x+2$ ko'pxadlar berilgan bo'lsa, $x = -2$ da

$\frac{(P(x))^3+(Q(x))^3}{(P(x))^2-P(x)Q(x)+(P(x))^2} + \frac{(P(x))^3-(Q(x))^3}{(P(x))^2+P(x)Q(x)+(P(x))^2}$ ifodani qiymatini toping

A) 2 B) 130 C) 80 C) 16

123. $1 - 2 + 3 - 4 + 5 - 6 + \ldots + 2015 - 2016 + 2017 = ?$

A) 1009 B) 130 C) 80 C) 16

124. $-3a^2 b^3 c^5 2a^3 c^2 d$ bir xad darajasini aniqlang ?

A) 16 B) 130 C) 80 C) 12

125. $-5x^3y - 2x^2y z^2 - 4xyz$ ko'phad darajasini toping.

A) 5 B) 130 C) 80 C) 16

126. $(a+b)^5$ koeffisentlar yig'indisini toping.

A) 32 B) 130 C) 80 C) 16

127. $P(x) = (3x-1)^{2017}$ $(8x+1)^{2016}+(4x-1)^3+(2x-1)^2+x+1$ ko'phad ozod hadini toping?

A) 0 B) 130 C) 80 C) 16

128. $(4x-3)^3(6x-1)^2$ koefisent yig'indisini toping

A) 25 B) 130 C) 80 C) 16

129. $\begin{cases} P(x) = (3x-1)^8 * (x-2)^4 + 7x \\ Q(x) = (2x-1)^{12} + 4x^2 \end{cases}$ ko'phadni yig'indisini toping darajada x^{12} paydo bo'ldi.Eng katta daraja 12 bo'lgani uchun javob : 12

130. a ning qanday qiymatida $P(x) = 2x^{12} - ax^6 + 4x^3 - 3x^2 + 5x + 1$ ko'phad koefisenti yig'indisi 7 ga teng.

A) 2 B) 130 C) 80 C) 16

131. $(a+2b)^5$ ko'phadni 4 o'rinda turgan koefisent toping.

A) 80 B) 130 C) 80 C) 16

132. Oxirgi raqami 1 bo'lgan [41;350] kesmaga tegishli barcha natural sonlar yig'indisini toping ?

A) 5921 B) 130 C) 80 C) 16

133. $0,(\overline{8a})$ davriy kasr qiymati 28/33 bo'lsa a = ?

A) 4 B) 130 C) 80 C) 16

134. $x+1/x = 3$ bo'lsa $x^4-7x^2+4 = ?$

A) 3 B) 130 C) 80 C) 16

135. 18 ga karrali 400 dan katta bo'lmagan barcha natural sonlar yig'indisi.

A) 4554 B) 130 C) 80 C) 16

136. Dastlabki 10 ta ketma-ket tub sonlar yonma yon yozildi. Xosil bo'lgan sondan 6 ta raqam ochirildi.Natijada eng katta son xosil bo'ldi. Xosil bo'lgan sonning 3 chi raqamini toping?

A) 1 B) 130 C) 80 C) 16

137. Raqamlari ko'paytmasi 2langani ga teng 2 xonalin sonni toping ?

A) 36 B) 130 C) 80 C) 16

138. Biror 2 xonali son va uning raqamlarini o'rnini almashtirib, ularni qo'shganda biror sonni kvadrati bo'ladigan barcha 2 xonali sonlar nechta

A) 8 B) 130 C) 80 C) 16

139. $a-1/a=4$ $a^2+1/a^2=18$ $a+1/a=?$

A) $2\sqrt{5}$ B) 130 C) 80 C) 16

140. Dastlabki 24 ta natural sonlar orasida nechtasi 2 , yoki 3 ga karrali emas

A) 8 B) 130 C) 80 C) 16

141. $\frac{1}{4-2\sqrt{3}}-\frac{1}{4+2\sqrt{3}}$ hisoblang

A) $\sqrt{3}$ B) 130 C) 80 C) 16

142. $5*\left[12\frac{2}{7}\right]+\left[5\frac{3}{37}\right]-8\left[3\frac{2}{3}\right]*[2.(9)]=?$

A) 17 B) 130 C) 80 C) 16

143. $[\pi^2]+[2.9]^2+[15,(99)]=?$

A) 28 B) 130 C) 80 C) 16

144. $\frac{10^{2015}+10^{2017}}{2*10^{2016}}=?$

A) $\frac{101}{20}$ B) 130 C) 80 C) 16

145. $\frac{\sqrt{10}+\sqrt{70}+\sqrt{20}}{\sqrt{2}+\sqrt{14}+2}=?$

A) $\sqrt{5}$ B) 130 C) 80 C) 1

146. a , b natural sonlar EKUK = 72 , ko'paytmasi 864 EKUB = ?

A) 12 B) 130 C) 80 C) 16

147. n! (1 dan n gacha sonlarni ko'paytmasi) 19! $=x$ 21645100408832000 x = ?

A) 1 B) 130 C) 80 C) 16

148. $\overline{ab}-\overline{ba}=45$ bo'lsa a^2+b^2 - 2ab = ?

A) 25 B) 130 C) 80 C) 16

149. Quti sirtini 70% ni bo'yash uchun 350 gr bo'yoq kerak. Qolganini bo'yash uchun qancha bo'yoq kerak?

A) 150 B) 130 C) 80 C) 16

150. $2x+8\le x^2<6x$ ni hisoblang?

A) [4; 6) B) 130 C) 80 C) 16

151. $2x+8\le x^2<6x$ butun yechimlari nechta?

A) 2 B) 130 C) 80 C) 16

152. $2x+8\le x^2\le 6x$ butun yechimlari yig'indisi?

A) 9 B) 130 C) 80 C) 16

153. Tengsizlikni yeching $x^6-28x^3+27\le 0$?

A) [1; 3] B) 130 C) 80 C) 16

154. Tengsizlikni yeching $x^4-13x^2+36\le 0$?

A) $[-3;-2]U[2;3]$ B) 130 C) 80 C) 16

155. $\frac{\sqrt{8-2x-x^2}}{x+2}\ge 0$ butun yechimlari nechta ?

A) 4 B) 130 C) 80 C) 16

156. $\frac{1-x}{\sqrt{3+2x-x^2}}\ge 0$ ni hisoblang ?

A) $(-1;1]$ B) 130 C) 80 C) 16

157. $\sqrt{6-x}<x$ ni hisoblang ?

A) (2; 6] B) 130 C) 80 C) 16

158. Agar a < 0 bo'lsa , $\frac{3}{x}<\frac{1}{a}$ ni yeching

A) $(3a;0)$ B) 130 C) 80 C) 16

159. Agar a < 0 , b > 0 bo'lsa $ax+a>bx+b$ ni yeching ?

A) $(-\infty;-1)$ B) 130 C) 80 C) 16

160. Agar $a>b$ bo'lsa , $bx+b^2>a^2+ax$ ni yeching ?

A) $x<-(a+b)$ B) 130 C) 80 C) 16

161. Agar <6 , bo'lsa , $3x+2y-6=0$ tenglamadan uning qiymatini toping.

A) $y>-6$ B) 130 C) 80 C) 16

162. Agar $x<8$, bo'lsa , $3x+2y-6=0$ tenglamadan uning qiymatini toping.

A) $y>-9$ B) 130 C) 80 C) 16

163. Agar <6 , bo'lsa , $3x+4y-6=0$ tenglamadan uning qiymatini toping.

A) $y>-3$ B) 130 C) 80 C) 16

164. Taqqoslang $a=40^{15}$, $b=25^{15}+15^{15}$

A) $a>b$ B) 130 C) 80 C) 16

165. $y=\frac{\sqrt{2x-1}+\sqrt{x-1}}{x^2-5x+8}$ aniqlash soxasini toping ?

A) $x\ge 1$ B) 130 C) 80 C) 16

166. $y=\frac{\sqrt{x+1}+\sqrt{7x-6-x^2}}{|5x-x^2|}$ aniqlash soxasini toping ?

A) [1; 5)U(5; 6] B) 130 C) 80 C) 16

167. $y=\frac{\sqrt{6x-x^2-5}+\sqrt{x-3}}{\sqrt{x^2+8x+18}}$ aniqlash soxasini toping ?

A) [3; 5] B) 130 C) 80 C) 16

168. $y=6x+3$, $y=-8-2x$ funksiya grafiklari qaysi chorakda kesishadi ?

A) III B) 130 C) 80 C) 16

169. $g(x)=mx^2-(m-9)x-2$ funksiyaning simmetrik o'qi tenglamasi x = -1 bo'lsa m ni toping ?

A) 3 B) 130 C) 80 C) 16

170. $g(x)=mx^2-(m-9)x-2$ funksiyaning simmetrik o'qi tenglamasi x = -2 bo'lsa m ni toping ?

A) 1.8 B) 130 C) 80 C) 16

171. $g(x)=mx^2-(m-9)x-2$ funksiyaning simmetrik o'qi tenglamasi x = -2 bo'lsa m ni toping ?

A) 1,8 B) 130 C) 80 C) 16

172. $g(x)=mx^2-(m-12)x-2$ funksiyaning simmetrik o'qi tenglamasi x = -1 bo'lsa m ni toping ?

A) 4 B) 130 C) 80 C) 16

173. $g(x)=-3x^2+9x+t-3$ funksiyaning eng katta qiymati 4 ga teng bo'lsa , t ni toping ?

A) 0.25 B) 130 C) 80 C) 16

174. $(\frac{x}{x+1})^2+(\frac{x}{x-1})^2=90$ tenglama haqiqiy ildizlari yig'indisini toping?

A) 0 B) 130 C) 80 C) 16

175. $(x^2+3)^2-7(x^4-9)+6(x^2-3)^2=0$ tenglama ildizlari $x1$ va $x2$ bo'lsa , $\frac{1}{x1}+\frac{1}{x2}=?$

A) 0 B) 130 C) 80 C) 16

176. $(x^2+3)^2-7(x^4-9)+6(x^2-3)^2=0$ tenglama ildizlari $x1$ va $x2$ bo'lsa , $\frac{1}{x1^2}+\frac{1}{x2^2}=?$

A) $\frac{10}{21}$ B) 130 C) 80 C) 16

177. $(x^2+3)^2-7(x^4-9)+6(x^2-3)^2=0$ tenglama ildizlari $x1$ va $x2$ bo'lsa , $\frac{x1}{x2}+\frac{x2}{x1}=?$

A) -2 B) 130 C) 80 C) 16

178. $a^2<38$ tengsizlikni qanoatlantiruvchi eng katta natural sonning natural bo'luvchilari yig'indisini toping?

A) 12 B) 130 C) 80 C) 16

179. $a^2 < 65$ tengsizlikni qanoatlantiruvchi eng katta natural sonning natural bo'luvchilari yig'indisini toping?

A) 15 B) 130 C) 80 C) 16

180. $a^2 < 99$ tengsizlikni qanoatlantiruvchi eng katta natural sonning natural bo'luvchilari yig'indisini toping?

A) 13 B) 130 C) 80 C) 16

181. $a^2 < 422$ tengsizlikni qanoatlantiruvchi eng katta natural sonning natural bo'luvchilari yig'indisini toping?

A) 42 B) 130 C) 80 C) 16

182. $a^2 < 260$ tengsizlikni qanoatlantiruvchi eng katta natural sonning natural bo'luvchilari yig'indisini toping?

A) 31 B) 130 C) 80 C) 16

183. $x^2 - 4x + 4 \leq 0$ tengsizlik o'rinli bo'ladigan barcha haqiqiy ildizlar uchun $|x - 2|$ ni toping ?

A) 0 B) 130 C) 80 C) 16

184. $log_x 8 > 3$ hisonlang ?

A) $(1; 2)$ B) 130 C) 80 C) 16

185. Tengsizlikni yeching $\sqrt{2x+4} < \sqrt{x^2+8x-3}$

A) $(1; \infty)$ B) 130 C) 80 C) 16

186. Tengsizlikni yeching $\sqrt{3-x} < x - 1$?

A) $(2; 3]$ B) 130 C) 80 C) 16

187. Tutgan balig'ining og'irligi qancha degan savolga baliqchi – baliqning dumi 1 kg , boshi uning dumi hamda tanasi yarmining og'irligiga teng. Tanasi esa boshi va dumining og'irligiga teng deb javob berdi. Baliqning og'irligi qancha

A) 6 B) 130 C) 80 C) 16

188. Tutgan balig'ining og'irligi qancha degan savolga baliqchi – baliqning dumi 3 kg , boshi uning dumi hamda tanasi yarmining og'irligiga teng. Tanasi esa boshi va dumining og'irligiga teng deb javob berdi. Baliqning og'irligi qancha

A) 18 B) 130 C) 80 C) 16

189. Tutgan balig'ining og'irligi qancha degan savolga baliqchi – baliqning dumi 4 kg , boshi uning dumi hamda tanasi yarmining og'irligiga teng. Tanasi esa boshi va dumining og'irligiga teng deb javob berdi. Baliqning og'irligi qancha

A) 24 B) 130 C) 80 C) 16

190. Tutgan balig'ining og'irligi qancha degan savolga baliqchi – baliqning dumi 2 kg , boshi uning dumi hamda tanasi yarmining og'irligiga teng. Tanasi esa boshi va dumining og'irligiga teng deb javob berdi. Baliqning og'irligi qancha

A) 12 B) 130 C) 80 C) 16

191. Bir kishi omonat kassadan hamma pulining $\frac{1}{4}$ qismini , keyin qolgan pulining $\frac{4}{9}$ qismini va 64000 so'm oldi. Shundan keyin uning jamg'armasida barcha pulining $\frac{3}{20}$ qoldi. Jamg'arma miqdori qancha ?

A) 240000 B) 130 C) 80 C) 16

192. Birinchi omborda 500 t , 2-omborda 600 t ko'mir bor. Birinchi ombordan har kuni 9 tonna , 2-sidan esa 11 tonna ko'mir olib ketiladi. Necha kundan so'ng ombordagi ko'mir miqdori teng bo'ladi?

A) 50 B) 130 C) 80 C) 16

193. Tarozining bir pallasiga 1 ta g'isht qo'yildi va muvozanatni saqlash uchun tarozining 2-pallasiga yarimta g'isht va 1 kg tosh qo'yildi.G'isht massasini toping?

A) 2 B) 130 C) 80 C) 16

194. Bir gala chumchuq 1 tadan shoxga qo'nganda 1 ta chumchuq ortib qoldi. 2 tadan qo'nganda esa 1 ta shox ortib qoldi.Nechta chumchuq va nechta shox bor ?

A) 4 *va* 3 B) 130 C) 80 C) 16

195. 20 ta ot bilan 14 ta sigirni boqish uchun firmada 180 kg pichan berilar edi.Pichan normasi ot uchun 25% , sigir uchun $33\frac{1}{3}$% oshirilgandan so'ng kuniga ularga 232 kg pichan beriladigan bo'ldi. Dastlab har bir otga va har bir sigirga necha kg pichan berilar edi .

A) 4.8 *va* 6 B) 130 C) 80 C) 16

196. 320 ta mandarin , 240 ta olma va 240 ta apelsin bor. Bu mevalarni teng taqsimlab ko'pi bilan nechta sovg'a tayyorlash mumkin ?

A) 80 B) 130 C) 80 C) 16

197. 1-poyezdda 792 ta 2-poyezdda 864 ta va 3-poyezdda 936 ta yo'lovchilar uchun joy bor. Dastavval vagondagi yo'lovchilar uchun belgilangan joylarning soni bir xil bo'lsa, har bir poyezdda eng kamida nechtadan vagon bor.

A) 72 B) 84 C) 92 D) 96

198. Birinchi idishda ikkinchisiga qaraganda 5 *l* ko'p benzin bor. Birinchi idishga 10 *l*, ikkinchi idishga 35 *l* benzin solingandan so'ng, ikkinchi idishdagi benzin birinchisidagiga qaraganda 2 marta ko'p bo'lib qoldi. Dastlab har bir idishda qnchadan benzin bo'lgan?

A) 10 va 5 B) 20 va 25 C) 30 va 35 D) 40

Olma mevsianing 90% i , quritilgan mevaning esa 12%i suvdan iborat. 44 kg olmadan necha kg quritilgan olma olish mumkin?

A) 5 B) 25 C) 30 D) 40

199. Olma mevsianing 90%i , quritilgan mevaning esa 12%i suvdan iborat. 88 kg olmadan necha kg quritilgan olma olish mumkin?

A) 10 B) 20 C) 30 D) 40

200. Olma mevsianing 90%i , quritilgan mevaning esa 12%i suvdan iborat. 22 kg olmadan necha kg quritilgan olma olish mumkin?

A) 2.5 B) 3.5 C) 4.5 D) 4

201. Olma mevsianing 90%i , quritilgan mevaning esa 12% i suvdan iborat. 55 kg olmadan necha kg quritilgan olma olish mumkin?

A) 6.25 B) 5.25 C) 3.25 D) 4.25

202. Motorli qayiq daryo oqimi bo'ylab A shahardan B shahargacha masofani 2 soatda, qaytishda esa 3 soatda bosib o'tadi. Sol bu masofani necha soatda bosib o'tadi?

A) 12 B) 32 C) 45 D) 40

203. Vertolyot 1-viloyatdan 2-viloyatga shamol yo'nalishi bo'yicha 1.5 soatda , 2-viloyatdan 1-viloyatgacha shamolga qarshi yo'nalishda 2 soatda yetib boradi. Agar shamolning tezligi 10 bo'lsa, 2 ta viloyat orasidagi masofa qancha ?

A) 120 B) 150 C) 405 D) 400

204. $(x^2+2x-5)^2+2(x^2+2x-5)-5=x$ bo'lsa , x_2+x_1 =?

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

205. $(x^2-8x+18)^2-8(x^2-8x+18)+18=x$, bo'lsa tenglamaning haqiqiy ildizi nechta ?

A) 2 B) 1 C) 3 D) 0

206. Tenglamalar sistemasi nechta yechimga ega $\begin{cases}x^2+(y-1)^2=1\\ x^2+y^2=4\end{cases}$?

A) 1 B) 2 C) 3 D) 0

207. Tenglamani yeching $x+\sqrt{x+\frac{1}{2}+\sqrt{x+\frac{1}{4}}}=2$

A) $2-\sqrt{2}$ B) $2\pm\sqrt{2}$ C) 0 D) 1

208. Tengsizlini butun yechimlari soni nechta $x*2^{log_x 3}<6$?

A) 0 B) 2 C) 3 D) 1

209. Tenglamalar sistemasi nechta yechimga ega $\begin{cases}(x^2+y^2-13)(x+y-7)=0\\ xy=6\end{cases}$?

A) 6 B) 5 C) 3 D) 0

210. $\begin{cases}\begin{cases}2x-y=5\\ xy=-3\end{cases}\\ \begin{cases}x^2-y^2=3\\ x^2+y^2=5\end{cases}\end{cases}$ tenglamalar sistemalarining birlashmasini qanoatlantiradigan barcha haqiqiy x va y larni yig'indisini toping?

A) -2.5 B) -3 C) -3.5 D) 0

211. $\begin{cases}x^2+(y+1)^2=1\\ (2-x)^2+(y+1)^2=1\end{cases}$ bo'lsa , x va y juftliklari nechta ?

A) 1 B) 2C) 3 D) 0

212. x_1 va x_2 $x^2+100x+2=0$ tenglamaning yechimlari, x_3 va x_4 $x^2+mx+n=0$ tenglamaning yechimlari. Agar $x_1=x_3^3$, $x_2=x_4^3$ bo'lsa , m^3-3mn ifodani qiymatini toping

A) 100 B) 120 C) 130 D) 95

213. $\begin{cases}x^2+ax+5=0\\ x^2-5x-a=0\end{cases}$ tenglamalar faqat bitta umumiy haqiqiy yechimga ega bo'lsa, a ni toping ?

A) 6 B) 5C) 7 D) 12

214. $(a^2+b^2+1)x^2+2(a+b+1)x+3=0$, bo'lsa $2a-b$ =?

A) 1 B) 2C) -1 D) -2

215. $2-3x+x^2=2(x-1)\sqrt{x}$, tenglamani yeching?

A) 1 va $4+2\sqrt{3}$ B) $4\pm2\sqrt{3}$ C) 0 D) -2

216. Tenglama ildizlarini ko'paytmasini toping $x^2+x-2x\sqrt{x-2}-6=0$

A) 6 B) 2C) -1 D) -2

217. $[2x-1]=x$ bo'lsa, tenglama yechimlari soni nechta ?

A) 1 B) 0C) 4 D) 5

218. $x^2+y^2+z^2=6x+8y+10z-50$ bo'lsa x ?

A) 3 B) 0C) 7 D) 2

219. Tenglamani yeching $x^2-3x-14+\sqrt{x^2-3x+6}=0$?

A) 5 va -2 B) 2 va 0 C) 5 va 7 D) 2 va 5

220. $\frac{x-2}{x+3}+\frac{3x+9}{x-2}=-4$ tenglama ildizlari yig'indisini toping ?

A) -2.25 B) -3.5 C) 0 D) 2

221. Tenglama haqiqiy ildizlari sonini toping $x^2-\sqrt{x^2-4x+4}=-2$?

A) 2 ta B) 3 ta C) 0 ta D) 1 ta

222. $x^2-10x+4=0$ tenglamaning haqiqiy ildizlari $x1, x2$ bo'lsa $|\sqrt{x1}-\sqrt{x2}|$ = ?

A) $\sqrt{6}$ B) $\sqrt{3}$ C) 0 D) 1

223. $8*x^{2-log_2 x}=1$ tenglama ildizlari ko'paytmasini toping ?

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

224. $\begin{cases}x+y=5\\ x+z=6\\ xy+yz+xz=29\end{cases}$ tenglamalar sistemasini yeching?

A) $(1;4;5)\ va\ (-1;6;7)$ B) $(-1;6;7)$ C) $(4;6;7)$ D) 0

225. Tenglamani yeching $\frac{2x+18}{x+3}-\frac{x-3}{3-x}=5$?

A) Ø B) 2C) 5 D) 3

226. Tenglamaning haqiqiy ildizlari yig'indisini toping $x^3-0.1x=0.3x^2$?

A) 0.3 B) 0.2 C) 0.5 D) -0.3

227. $(x^2-2x)^2-(x-1)^2+1=0$ tenglama nechta ildizga ega ?

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

228. Tenglamani kichik ildizini toping $log_2(x^2-4x)^2=2log_2(18-5x)$?

A) $\frac{-1-\sqrt{73}}{2}$ B) $\frac{-1+\sqrt{73}}{2}$ C) $\frac{-1-\sqrt{73}}{3}$ D) $\frac{-1+\sqrt{73}}{3}$

229. $\begin{cases}x^3+y^6=91\\ x+y^2=7\end{cases}$ tenglama sistemasining barcha haqiqiy yechimlari (x1,y1) ... (xn,yn) bo'lsin x1+y1+...+xn+yn = ?

A) 14 B) 12 C) 15 D) 31

230. Tengsizlikning butun sonlardan iborat nechta yechimi bor $\frac{x-\sqrt{x}-2}{x-\sqrt{x}-6}<0$

A) 4 B) 1C) 3 D) 0

231. Tenglamalar sistemasi yechimlaridan iborat barcha (x,y) lari yig'indisini toping $\begin{cases}x-y=3\\ lgx+lgy=1\end{cases}$

A) 7 B) 4C) 5 D) 2

232. Soddalashtiring $\frac{x^2-2mx+3x-6m}{x^2+2mx+3x+6m}=\frac{x(x-2m)+3(x-2m)}{x(x+2m)+3(x+2m)}$

A) $\frac{x-2m}{x+2m}$ B) $\frac{x+2m}{x-2m}$ C) $\frac{x-3m}{x+2m}$ D) $\frac{x-2m}{x+3m}$

233. Oxirgi raqamini toping $2014^{2015}+2015^{2016}+2016^{2017}$ = ?

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

234. Tenglamani qanoatlantiruvchi musbat x ni toping $2+5+8+\cdots+x=100$

A) 23 B) 21 C) 25 D) 24

235. x qaysi oraliqqa tegishli $x^{\frac{1}{lgx}}=10$?

A) (0;1)U(1;∞) B) (0;1) C) (1;∞)
D) ∅

236. Tenglamani nechta ildizi bor $3^{|x|} = cosx$?
A) 1 B) 2 C) 5 D) ∞

237. $(x^2+1)(y^2+1) = (x+y)^2 + 1$ tenglamaning natural yechimlari juftliklarini soni nechta ?
A) 2 B) 1 C) ∞ D) 0

238. Tenglamaning eng kichik musbat ildizini toping $cos5xcos3x = cos5xcos7x$
A) $\frac{\pi}{10}$ B) $\frac{\pi n}{10}$ C) $\frac{\pi}{10n}$ D) $\frac{\pi}{20}$

239. m ning qanday qiymatlarida $2m = 3 - 5x$ tenglamaning ildizlari (1;5) da bo'ladi ?
A) (-11;1) B) (-1;1) C) (1;11) D) ∅

240. $ax^2 + bx - a = 0$, $a \neq 0$ tenglama nechta yechimga ega ?
A) 2 B) 1 C) ∞ D) 0

241. $5 + 6.5 + 8 + \cdots + \frac{10+3x}{2} = 182$ bo'lsa , x ni toping ?
A) 12 B) 14 C) 17 D) 74

242. Tenglama ildizlari ko'paytasini toping $x^{log_5 9} + 2 * 3^{log_5 x} - 15 = 0$?
A) 5 B) 9 C) 17 D) 7

243. $x^2 - (m-2)x - 5 = 0$, $x1 + \frac{1}{x2} = 2$ bo'lsa , m ni toping?
A) 2.5 B) 2.9 C) 1.7 D) 7.4

244. Tenglamaning butun ildizlari yig'indisini toping $|x^2 - 3x - 4| - 2|x - 4| = 0$?
A) 2 B) -2 C) 3 D) 7

245. $\begin{cases} \frac{1}{x+y} + \frac{1}{x+z} = \frac{7}{12} \\ \frac{1}{x+y} + \frac{1}{y+z} = \frac{8}{15} \\ \frac{1}{z+y} + \frac{1}{x+z} = \frac{9}{20} \end{cases}$ bo'lsa , $x + y + z$ =?
A) 6 B) -2 C) 3 D) 7

246. $f(x) = x(x+1)\ldots(x+10)$ $f'(0)$ =?
A) 3628800 B) 3682800 C) 3688200

247. $f(x) = xsin(x)$, bo'lsa $f'(0)$ ni toping ?
A) 0 B) 2 C) 1 D) 7

248. k = 1,2,... larda $f_k(x) = \frac{1}{k}(sin^k x + \cos^k x)$ funksiya berilgan bo'lsin. Agar $x = \frac{\pi}{3}$ bo'lsa , $f_4(x) - f_6(x)$ ni toping ?
A) $\frac{1}{12}$ B) $\frac{1}{2}$ C) 1 D) 0

249. $(log_{\sqrt[5]{5}}\sqrt{5})^2 - log_{\sqrt[3]{5}}5\sqrt{5} + log_{\sqrt{3}+1}(4 + 2\sqrt{3}) =$?
A) 3.75 B) $\frac{1}{2}$ C) 1.25 D) 1.12

250. Agar $log_3 25 = a$, $log_{25} 8 = b$, $log_2 3$ =?
A) $\frac{3}{ab}$ B) $\frac{1}{b}$ C) $\frac{9}{b}$ D) $\frac{8}{b}$

251. Ayrim a, b, c, d sonlari uchun $alg2 + blg3 + clg5 + dlg7 = 2017$, $a + b + c + d$ =?
A) 4034 B) 4025 C) 2017 D) 0

252. $8x^{2-log_2 x} = 1$ ildizlari ko'paytmasi ?
A) 4 B) 45 C) 1 D) 0

253. Hisoblang $log_{\sqrt{3}-\sqrt{2}}(49 + 20\sqrt{6})$ = ?
A) -4 B) 45 C) 1 D) 0

254. Hisoblang $log_{\sqrt{3}+\sqrt{2}}(49 - 20\sqrt{6})$ = ?
A) -4 B) 45 C) 1 D) 0

255. Hisoblang $log_{\sqrt{6}-\sqrt{5}}(241 + 44\sqrt{30})$ = ?
A) -4 B) 45 C) 1 D) 0

256. a ning qanday qiymatida $ax - 4a - 3(x+1) = -6x + a^2$ tenglama cheksiz ko'p yechimga ega bo'ladi?
Javob : -3

257. a ning qanday qiymatida $ax + 4a + 3(x-1) = 6x + a^2$ tenglama cheksiz ko'p yechimga ega bo'ladi?
Javob : 3

258. $x \in [-2; 2]$ bo'lsa , $\sqrt{x^2+4x+4} + \sqrt{x^2-4x+4}$ ifodani qiymatini toping ?
Javob: 4

259. $x \in [-3; 3]$ bo'lsa , $\sqrt{x^2+6x+9} + \sqrt{x^2-6x+9}$ ifodani qiymatini toping ?
Javob: 6

260. $x \in [-4; 4]$ bo'lsa , $\sqrt{x^2+8x+16} + \sqrt{x^2-8x+16}$ ifodani qiymatini toping ?
Javob: 8

261. $x \in [-0.5; 0.5]$ bo'lsa , $\sqrt{4x^2+4x+1} + \sqrt{4x^2-4x+1}$ ifodani qiymatini toping ?
Javob: 2

262. $x \in [-1; 1]$ bo'lsa , $\sqrt{x^2+2x+1} + \sqrt{x^2-2x+1}$ ifodani qiymatini toping ?
Javob: 2

263. a ning qanday qiymatida $ax + \frac{|x|}{x} = 2a + 1$ tenglama 2 ta ildizga ega bo'ladi ?
Javob: $a \in (-1; 0)$

264. a ning qanday qiymatida $ax + \frac{|x|}{x} = 2a + 2$ tenglama 2 ta ildizga ega bo'ladi ?
Javob: $a \in (-1.5; -0.5)$

265. $\frac{|x+1|}{x+1} - 2 = -ax + a$ a ning qanday qiymatida ifoda qiymatga ega bo'ladi ?
Javob: $a \in (-1.5; -0.5)$

266. $\frac{|x+1|}{x+1} - 3 = -ax + a$ a ning qanday qiymatida ifoda qiymatga ega bo'ladi ?
Javob: $a \in (-2; -1)$

267. $\frac{|x+1|}{x+1} - 4 = -ax + a$ a ning qanday qiymatida ifoda qiymatga ega bo'ladi ?
Javob: $a \in (-2.5; -1.5)$

268. $\frac{|x+1|}{x+1} - 5 = -ax + a$ a ning qanday qiymatida ifoda qiymatga ega bo'ladi ?
Javob: $a \in (-3; -2)$

269. $\frac{|x+1|}{x+1} - 6 = -ax + a$ a ning qanday qiymatida ifoda qiymatga ega bo'ladi ?
Javob: $a \in (-3.5; -2.5)$

270. $(2x+1)^4 - 8x^2 - 8x - 2 = 8$ tenglama ildizlari yig'indisini toping?
Javob: -1

271. $(2x-1)^4 - 8x^2 + 8x - 2 = 8$ tenglama ildizlari yig'indisini toping?
Javob: 1

272. $(2x+1)^4 - 3(2x+1)^2 = 4$ tenglama ildizlari yig'indisini toping?
Javob: -1

273. Tengsizliklar sistemasi nechta butun yechimga ega $\begin{cases} |5+x| \le 9 \\ |2x+5| \ge 13 \end{cases}$
Javob: 7 ta

274. Tengsizliklar sistemasi nechta butun yechimga ega $\begin{cases} |4+x| \le 7 \\ |2x+3| \ge 9 \end{cases}$
Javob: 7 ta

275. Tengsizliklar sistemasi nechta butun yechimga ega $\begin{cases} |6+x| \le 10 \\ |2x+7| \ge 15 \end{cases}$
Javob: 7 ta

276. Tengsizliklar sistemasi nechta butun yechimga ega $\begin{cases} |4+x| \le 9 \\ |2x+5| \ge 15 \end{cases}$
Javob: 5 ta

277. Tengsizliklar sistemasi nechta butun yechimga ega $\begin{cases} |7+x| \le 13 \\ |2x+9| \ge 21 \end{cases}$
Javob: 7 ta

278. $x = \frac{\sqrt{13}+1}{2}$ bo'lsa , $\frac{x^3-3x^2+6x-2}{x^2-x+1}$ ni hisoblang
Javob: $\frac{7\sqrt{13}-9}{8}$

279. $x = \frac{\sqrt{11}+1}{2}$ bo'lsa , $\frac{x^3-3x^2+6.5x-2}{x^2-x+1}$ ni hisoblang ?
Javob: $\sqrt{11}-1$

280. $x = \frac{\sqrt{17}+1}{2}$ bo'lsa , $\frac{x^3-3x^2+5x-2}{x^2-x+1}$ ni hisoblang
Javob: $\frac{7\sqrt{17}-13}{10}$

281. $a = 16.3 , b = -6.3$ bo'lsa , $a^3 + a^2b - ab^2 - b^3$ ni hisoblang ?
Javob: 2260

282. $a = 11.4 , b = -1.4$ bo'lsa , $a^3 + a^2b - ab^2 - b^3$ ni hisoblang ?
Javob: 1280

283. $a = 12.2 , b = -2.2$ bo'lsa , $a^3 + a^2b - ab^2 - b^3$ ni hisoblang ?
Javob: 1440

284. Agar $a = 6^{300} , b = 3^{600}$ bo'lsa , quyidagi munosabatlarning qaysi biri o'rinli ?
Javob: b>a

285. Agar $a = 6^{200} , b = 2^{600}$ bo'lsa , quyidagi munosabatlarning qaysi biri o'rinli ?
Javob: a<b

286. $f(x) = x^{sin2x} , f'\left(\frac{\pi}{4}\right) = ?$
Javob: 1

287. $f(x) = x^{sin4x} , f'\left(\frac{\pi}{8}\right) = ?$
Javob: 1

288. $f(x) = x^{sin3x} , f'\left(\frac{\pi}{6}\right) = ?$
Javob: 1

289. $f(x) = \frac{2}{x^2+1} , f'(-4) = ?$
Javob: $\frac{16}{289}$

290. $g(x) = \frac{x^2+5x}{x^2+1} , g'(0) = ?$
Javob: 5

291. $g(x) = \frac{x^2+3x}{x^2+1} , g'(0) = ?$
Javob: 3

292. $g(x) = \frac{x^2+4x}{x^2+1} , g'(0) = ?$
Javob: 4

293. Agar $f(x) = x\sqrt{x^3+8}$, bo'lsa $f'(2) = ?$
Javob: 7

294. Agar $f(x) = x\sqrt{x^3+1}$, bo'lsa $f'(2) = ?$
Javob: 7

295. Agar $f(x) = x\sqrt{x^3+8}$, bo'lsa $f'(1) = ?$
Javob: 3.5

296. Agar $f(x) = ax^3 + 3x^2 + 6 , f'(2) = 16$, bo'lsa a ni toping
Javob: 1/3

297. Agar $f(x) = ax^3 + 5x^2 + 6 , f'(2) = 16$, bo'lsa a ni toping
Javob: $-1/3$

298. Agar $f(x) = ax^3 - 5x^2 + 6 , f'(2) = 16$, bo'lsa a ni toping
Javob: 3

299. $f(x) = x^5|x^2 - 3|$, bo'lsa $f'(1) = ?$
Javob: 8

300. $f(x) = x^5|x^2 - 5|$, bo'lsa $f'(1) = ?$
Javob: 18

301. $f(x) = x^5|x^2 - 2|$, bo'lsa $f'(1) = ?$
Javob: 3

302. $f(2x-1) = 4x^3 - 3x^2 + 10x + 4$ $bo'lsa, (1) = ?$
Javob: 8

303. $f(2x+1) = 4x^3 - 3x^2 + 10x + 4$ $bo'lsa, f'(1) = ?$
Javob: 5

304. $f(2x) = 6x^3 + 4x^2 + 2x + 1$ $bo'lsa,\ f'(2) - f(2) = ?$
Javob: 1

305. $g(3x) = 6x^3 + 4x^2 + 2x + 1$ $bo'lsa, f'(3) - f(3) = ?$
Javob: $-\frac{11}{3}$

306. $f(x) = arctg(cosx)$ $bo'lsa, f'\left(\frac{\pi}{4}\right) = ?$
Javob: $-\sqrt{2}/3$

307. $f(x) = arcsin(sinx)$, $\cos x > 0$ $bo'lsa, f'(x) = ?$
Javob: 1

308. $f(x) = arcctg(cosx)$ $bo'lsa, f'(x) = ?$
Javob: $\frac{sinx}{1+cos^2x}$

309. $f(x) = lnx^3 + ln^3x$ $bo'lsa, f'(1) = ?$
Javob: 3

310. $f(x) = \frac{1}{2}ln^2x$ $bo'lsa, f'(e) = ?$
Javob: $1/e$

311. Agar $f(x) = x^3 + 2ax^2 + 3bx + 8 , f''(3) = 22$ bo'lsa , a = ?
Javob: 1

312. Agar $f(x) = x^3 + 2ax^2 + 3bx + 4 , f''(2) = 20$ bo'lsa , a = ?
Javob: 2

313. Agar $f(x) = x^3 + 2ax^2 + 3bx + 6 , f''(1) = 18$ bo'lsa , a = ?

Javob: 3

314. Agar $f(x) = x^3 + 2ax^2 + 3bx + 11, f''(-2) = 4$ bo'lsa , a = ?

Javob: 4

315. Agar $(x) = x^3 - 5x^2 + 2x + a, f''(2) = f(2)$ bo'lsa , a = ?

Javob: 10

316. $\int x\sqrt{1+2x^2}dx$

Javob: $\frac{1}{6}(1+2x^2)^{\frac{3}{2}} + C$

317. $\int x\sqrt{1-2x^2}dx$

Javob: $-\frac{1}{6}(1-2x^2)^{\frac{3}{2}} + C$

318. $\int e^{sinx}cosxdx$

Javob: $e^{sinx} + C$

319. $\int e^{cosx}sinxdx$

Javob: $-e^{cosx} + C$

320. $\int e^{2sinx}\cos x\,dx$

Javob: $\frac{1}{2}e^{2sinx} + C$

321. $\int e^{3sinx}\cos x\,dx$

Javob: $\frac{1}{3}e^{3sinx} + C$

322. $\int \frac{e^{3tgx}}{cos^2x}dx = ?$

Javob: $\frac{1}{3}e^{3tgx} + C$

323. $\int \frac{e^{3ctgx}}{sin^2x}dx = ?$

Javob: $-\frac{1}{3}e^{3ctgx} + C$

324. $\int_{-1}^{8} \frac{4}{x}dx = ?$

Javob: $12ln2$

325. $\int_1^2 -4x^{-4}dx = ?$

Javob: $-\frac{7}{6}$

326. $\int_a^b (3x^2+1)dx = 126, a^2 + ab + b^2 = 17, b - a = ?$

Javob: 7

327. $\int_a^b (3x^2+1)dx = 162, a^2 + ab + b^2 = 17, b - a = ?$

Javob: 9

328. $\int_a^b (3x^2+1)dx = 36, a^2 + ab + b^2 = 17, b - a = ?$

Javob: 2

329. $\int_a^b (3x^2+1)dx = 108, a^2 + ab + b^2 = 17, b - a = ?$

Javob: 6

330. $F(x) = \int_4^{x^2} (t^2-4)dt, F'(2) = ?$

Javob: 48

331. $F(x) = \int_4^{x^2} (t^2-3)dt, F'(2) = ?$

Javob: 52

332. $F(x) = \int_4^{x^2} (t^2-5)dt, F'(2) = ?$

Javob: 44

333. $F(x) = \int_4^{x^2} (t^2-8)dt, F'(2) = ?$

Javob: 32

334. $F(x) = \int_4^{x^2} (t^2-6)dt, F'(2) = ?$

Javob: 40

335. $\int_a^b (4x+5)dx = 150, a + b = 10, b - a = ?$

Javob: 6

336. $\int_a^b (4x+5)dx = 175, a + b = 10, b - a = ?$

Javob: 7

337. $\int_a^b (4x+5)dx = 50, a + b = 10, b - a = ?$

Javob: 2

338. $f(x) = 3^{2x+1} - 8 * 6^x + 4^{x+1}, f(x+1) = 5f(x)$, tenglamani yeching ?

Javob: 0

339. $(z^2-1)x^2 + 2(z-1)x + 2$, z ning qanday qiymatlarida har qanday x uchun ifoda musbat bo'ladi ?

Javob: $(-\infty; -3)U[1; \infty)$

340. $f(x) = \frac{x-1}{x+1}$, bo'lsa , $f(\frac{1}{x^2})$ ni toping ?

Javob: $\frac{1-x^2}{1+x^2}$

341. $y = \frac{1}{1+x^2}$ funksiya qiymatlar soxasini toping

Javob: $(0; 1]$

342. $y = x^2 - 4x + 8$ funksiyaning grafigiga (1;1) nuqtaga nisbatan simmetrik bo'lgan funksiyani toping ?

Javob: $y = -x^2 - 2$

343. $y = (13x-7)lnx, f'(x) = ?$

Javob: $13lnx + \frac{13x-7}{x}$

344. $y = lnx, x > 0$ funksiyaning 2-tartibli hosilasini toping ?

Javob: $-\frac{1}{x^2}$

345. $y = x^3(x^3+16)$ funksiya ekstremum nuqtadagi qiymatini toping ?

Javob: -64

346. $f(x) = \frac{2}{x^2+1}, f'(4) = ?$

Javob: $-\frac{16}{289}$

347. $f(x) = \frac{x^2+3x}{x^2+1}, f'(0) = ?$ Javob: 3

348. $f(x) = \frac{x^2+x}{x^2+1}, f'(0) = ?$ Javob: 1

349. $f(x) = \frac{x^2+5x}{x^2+1}, f'(0) = ?$ Javob: 5

350. $y = \sqrt{4-(x-3)^2}$ funksiya grafigi bo'lgan egri chiziq uzunligini toping ? y>0

Javob: 2π

351. $y = \sqrt{4-(x-3)^2}$ va y=0 funksiya grafiklari bilan chegaralangan soxa yuzini toping ?

Javob: 2π

352. $y = \lg(4-x)$ funksiyaning aniqlash soxasini toping ?

Javob: $(-\infty; 4)$

353. Agar $f(x) = x^2 - 5$ bo'lsa $f(a-1) - f(a+1) + 2f(1-a^2) - 2a^4 + 4a^2$ ni toping ?

Javob: $-4a - 8$

354. Agar $2^x = a$ bo'lsa , $2^{2(x+2)}$ ni a orqali ifodalang ?

Javob: $16a^2$

355. $f(x) = ax + b$ funksiya uchun $f(1) \leq f(2)$, $f(4) \leq f(3), f(2017) = 1$ shartlar bajarilsa , $f(4) - f(2) = ?$

Javob: 0

356. $f(x) = ax + b$ funksiya uchun $f(1) \leq f(2)$, $f(4) \leq f(3), f(2016) = 2$ shartlar bajarilsa , $f(3) - f(1) = ?$

Javob: 0

357. $f(x) = ax + b$ funksiya uchun $f(1) \leq f(2)$, $f(4) \leq f(3), f(2016) = 3$ shartlar bajarilsa , $f(3) - f(1) = ?$

Javob: 0

358. $y = 8 + \frac{16}{\pi}\arcsin(5x + 6)$, funksiyaning minimum qiymatini toping ?

Javob: 0

359. $y = 8 + \frac{16}{\pi}\arcsin(5x + 6)$, funksiyaning maksimum qiymatini toping ?

Javob: 16

360. $y = 5 + \frac{18}{\pi}\arcsin(3x - 7)$, funksiyaning maksimum qiymatini toping ?

Javob: 14

361. $y = 5 + \frac{18}{\pi}\arcsin(3x - 7)$, funksiyaning minimum qiymatini toping ?

Javob: -4

362. $y = \frac{16x^2}{(1+x^2)(9x^2+1)}$ ifodaning eng katta qiymatini toping ?

Javob: 1

363. $y = \frac{3x^2}{(1+x^2)(4x^2+1)}$ ifodaning eng katta qiymatini toping ?

Javob: 1/3

364. $y = x^2 + 7x - 6$ funksiya grafigiga o'tkazilgan urinma tenglamasi $y = 6x + 9$ bo'lsa , urinish nuqtasi abtsissasini toping ?

Javob: $x_0 = -1/2$

365 Markazi $M(2; 5)$ nuqtada bo'lib kordinata boshidan o'tuvchi aylana tenglamasini toping ?

Javob : $x^2 + y^2 - 4x - 10y = 0$

366 ABC to'g'ri burchakli uchburchakning B o'tkir burchagidan BD bissektrisa o'tkazilgan. Agar $\angle CAB = \alpha$, $\angle CDB = \beta$ va CD = 1 , AD = 3 , $tg(\alpha + \beta) = ?$

Javob : $\frac{5\sqrt{2}}{2}$

367 ABC uchburchakda BC tomoniga AB ga teng AD to'g'ri chiziq o'tkazilgan. Agar AC = 5 , DC = 1 , BD = 6 , AB = ?

Javob : $3\sqrt{2}$

368 ABC uchburchakda BC tomoniga AD kesma va D nuqta va AB tomonga DE perpendikulyar o'tkazilgan. Agar AB = BC , AE = EB , AD = 5 va ED = 3 bo'lsa , DC ni toping?

Javob : 3

369 ABC uchburchak. BC tomoniga AD kesma o'tkazilgan. Agar AD = AC , AB = BC . DC = 6 va BD = 4 bo'lsa ABC uchburchakninng perimetrini toping ?

Javob : $2(10 + \sqrt{15})$

370 Piramida asosi katetlari 5 va 12 ga teng bo'lgan to'g'ri uchburchakdan iborat. Piramidaning barcha qirralari asos tekisligi bilan 45° li burchak tashkil etsa , uning hajmini toping ?

i. Javob : 65

371 M nuqta $ABCA_1B_1C_1$ muntazam prizma ABC asosining BC tomoni o'rtasi bo'lsin. Prizmaning yon qirrasi $\sqrt{44}$ ga , asosining tomoni 16 ga teng. B_1M to'g'ri chiziq va ABB_1A_1 yon yog'i orasidagi burchak sin sini toping ?

i. Javob : 0.8

372 Uchburchakning balandligi 4ga teng va u asosini 1:8 nisbatda bo'ladi. Balandlikka parallel va uchburchaka tengdosh bo'laklarga boluvchi kesma uzinligini toping?

i. Javob : 3

373 Uchburchakning ichki burchaklari o'suvchi arifmetik progressiyaning ketma-ket hadlarini tashkil etadi. Shu uchburchakning eng katta va eng kichik burchaklarining yig'indisini toping ?

i. Javob : 60°

374 Tekislikni kesib o'tuvchi tekislik 4 va 6 masofada tursa , berilgan kesma o'rtasidan tekislikgacha bo'lgan masofani toping ?

i. Javob : 1

375 To'g'ri burchakli uchburchakga ichki chizilgan aylana radiusi 5 ga uning gipotenuzasiga tushirilgan balandligi ajratgan 2 ta uchburchakga ichki chizilgan aylanalar radiuslari mos ravishda 3 va 4 ga teng.Tushirilgan balandlikni toping ?

i. Javob : 12

376 AB , AC va AD to'g'ri chiziqlar juft-juti bilan perpendikulyar. Agar AB = 4 , BC = 5 , AD = 3 bo'lsa CD = ?

i. Javob : $3\sqrt{2}$

377 Perimetri 60 ga teng bo'lgan to'g'ri burchakli uchburchakga ichi chizilgan aylana radiusi 4 ga teng. Gipotenuza uzunligini toping ?

i. Javob : 26

378 Asoslari 5 va 3 ga teng bo'lgan trapetsiyaning yon tomoni kesishguncha davom ettirildi va kesishish nuqtaning asoslariga parallel to'g'ri chiziq o'tkazildi. Ushbu chiziq bilan trapetsiyaning diagonallari davom ettirilishidan hosil bo'lgan kesma uzunligini toping ?

i. Javob : 15

379 ABC uchburchakda AD mediana va BE bissektrisa AD 3:8 nisbatda bo'lsa. U holda AC tomon qanday nisbatda bo'ladi?

i. Javob : 3: 4

380 Kvadratning tomonlari koordinata o'qlariga parallel va 6 ga teng. Uning markazi (2;1) nuqta joylashsa kvadrat tomonlarining ordinate Oy o'qi kesishgan nuqtasini toping?

i. Javob : $(0; 4)$, $(0; -2)$

381 Uchlari A(-4:0) , B(5:3) va C(0:-2) nuqtalarda bo'lgan ABC uchburchal BC tomonining Ox o'qi bilan kesishgan nuqtasining koordinatasini toping ?

i. Javob : (2: 0)

382 $= 5x^2 + 9x + 3$ funksiya grafigiga o'tkazilgan urinma tenglamasi $y = x + 11$ bo'lsa , urinish nuqtasi abtsissasini toping ?

a. Javob: $x_0 = -1/2$

383 $f(x) = (m-2)x^2 + 8x - m^2 + 4$ funksiya grafigi koordinatalar boshidan o'tsa , simmetriya o'qi tenglamasini toping ?

a. Javob: $x_0 = 1$

384 Tenglamani yeching $|sinx| = sinx * cosx$

a. Javob: $x_0 = \pi n$

385 $g(x) = xsin\pi x$, $f'(0) = ?$

a. Javob: $x_0 = 0$

386 $y = 5cos5x + 3cos3x$, $y' = ?$

a. Javob: $y' = -25sin5x - 9sin3x$

387 $y = (x+8)e^{x-8}$ funskiya berilgan. Bu funksiya x ning qanday qiymatida eng kichik qiymatga erishadi?

a. Javob: $x_{min} = -9$

388 $y = (x+6)e^{x-6}$ funskiya berilgan. Bu funksiya x ning qanday qiymatida eng kichik qiymatga erishadi?

a. Javob: $x_{min} = -7$

389 $y = (x+5)e^{x-5}$ funskiya berilgan. Bu funksiya x ning qanday qiymatida eng kichik qiymatga erishadi?

a. Javob: $x_{min} = -6$

390 $f(x) = \ln(2x + \sqrt{x^2+1})$ bo'lsa , $f'(0) = ?$

a. Javob: $x_{min} = 2$

391 $f(x) = \ln(4x + \sqrt{x^2+1})$ bo'lsa , $f'(0) = ?$

a. Javob: $x_{min} = 4$

392 $f(x) = \ln(3x + \sqrt{x^2+1})$ bo'lsa , $f'(0) = ?$

a. Javob: $x_{min} = 3$

393 $F(x) = \int \frac{2}{e^x} = ?$, $f(ln2) = 0$

a. Javob: $f(x) = -2e^{-x} + 1$

394 $F(x) = \int \frac{4}{e^x} = ?$, $f(ln2) = 0$

a. Javob: $f(x) = -4e^{-x} + 2$

395 $f(x) = \frac{1}{\sqrt{4-x^2}}$, $F(x) = ?$

a. Javob: $F(x) = arcsin\frac{x}{2} + C$

396 $f(x) = \frac{1}{9+y^2}$, funskiyaning boshlang'ich funksiyasini toping ?

a. Javob: $F(x) = \frac{1}{3}arctg\frac{x}{3} + C$

397 $f(x) = \frac{1}{4+y^2}$, funskiyaning boshlang'ich funksiyasini toping ?

a. Javob: $F(x) = \frac{1}{2}arctg\frac{x}{2} + C$

398 $y = \sqrt{x}$ va $y = x^3$ egri chiziqlar bilan chegaralangan soxa yuzini toping ?

a. Javob: $F(x) = \frac{5}{12}$

399 $y = 2\sqrt{x}$ va $y = 2x^3$ egri chiziqlar bilan chegaralangan soxa yuzini toping ?

a. Javob: $F(x) = \frac{5}{6}$

400 $y = 3\sqrt{x}$ va $y = 3x^3$ egri chiziqlar bilan chegaralangan soxa yuzini toping ?

a. Javob: $F(x) = \frac{5}{4}$

401 $y = -2\sqrt{x}$ va $y = -2x^3$ egri chiziqlar bilan chegaralangan soxa yuzini toping ?

a. Javob: $F(x) = \frac{5}{6}$

402 $y = 6\sqrt{x}$ va $y = 6x^3$ egri chiziqlar bilan chegaralangan soxa yuzini toping ?

a. Javob: $F(x) = 2.5$

403 $f(x) = \frac{1}{e^x+1}$ funksiyaning boshlang'ich funksiyasini toping ?

a. Javob: $F(x) = 1 - cos1$

404 $f''(x) = \sqrt{2x}$, $f'(2) = \frac{2}{3}$, $f(2) = -\frac{13}{15}$, $f(x)$ – ni toping ?

a. Javob: $f(x) = \frac{1}{15}(2x)^{\frac{5}{2}} - 2x + 1$

405 $f''(x) = \sqrt{2x}$, $f'(2) = \frac{2}{3}$, $f(2) = 2\frac{13}{15}$, $f(x)$ – ni toping ?

a. Javob: $f(x) = \frac{1}{15}(2x)^{\frac{5}{2}} - 2x + 1$

406 Moddiy nuqta tenglamasi chiziq bo'ylab $x(t) = \frac{1}{2}t^3 - 3t^2 + 2t + 1$ harakat tenglamasi bilan harakatlanmoqda. Uning 6s dagi tezlgini toping ?

a. Javob: $20\ m/s$

407 Moddiy nuqta tenglamasi chiziq bo'ylab $x(t) = \frac{1}{2}t^3 - 3t^2 + 2t + 2$ harakat tenglamasi bilan harakatlanmoqda. Uning 6s dagi tezlgini toping ?

a. Javob: $20\ m/s$

408 $(x^2+2x+3)(y^2-4y+8) = 8$ bo'lsa , $\frac{x-y}{x+y} = ?$

a. Javob: -3

409 $(x^2+2x+3)(y^2-4y+8) = 8$ bo'lsa , $\frac{x+y}{y-x} = ?$

a. Javob: $\frac{1}{3}$

410 $x^3 + x - \frac{20}{x^3+x} = 8$ tenglamaning haqiqiy yechimlari yig'indisini toping ?

a. Javob: 1

411 $x^3 + x - \frac{20}{x^3+x} = 8$ tenglamaning haqiqiy yechimlari ko'paytmasini toping ?

a. Javob: -2

412 $a > b > 0$ sonlari uchun $a^2 + b^2 = 6ab$ bo'lsa , $\frac{a+b}{a-b}$ ni toping ?

a. Javob: $\sqrt{2}$

413 Agar x_0 $2x^3 - 5x^2 + 3x + 42 = 0$ tenglamaning haqiqiy ildizi bo'lsa , $\frac{x_0+5}{3} = ?$

a. Javob: 1

414 $\frac{1}{x(x-4)} - \frac{1}{(x-2)^2} = 0{,}0(8)$ tenglamaning ildizlari ko'paytmasini toping.

1. Javob: -5

415 x>0 , y>0, z>0 $(1+\frac{x}{y})(1+\frac{y}{z})(1+\frac{z}{x})$ ko'paytmaning eng kichik qiymatini toping

1. Javob: 8

416 $xy+\sqrt{(1+x^2)(1+y^2)} = \sqrt{5}$ bo'lsa , $x*\sqrt{1+y^2} + y*\sqrt{1+x^2}$ ni toping

1. Javob: $2; -2$

417 a ning qanday qiymatlarida $x^4 + a*x^2 + 1$ va $x^3 + ax + 1$ ko'phadlar umumiy ildizga ega bo'ladi ?

1. Javob: -2

418 Soddalashtiring $\sqrt{\frac{a+1}{a-1}\sqrt{(\frac{a+1}{a-1})^{-1}}}$ Javob: $\sqrt[4]{\frac{a+1}{a-1}}$

419 $0 \le a < 1$ bo'lsa , $\frac{1-a}{\sqrt{1-\sqrt{a}}}$ ni soddalashtiring Javob: $(1+\sqrt{a})\sqrt{1-\sqrt{a}}$

420 $\frac{x}{a}+\frac{y}{b}+\frac{z}{c}=1$, $\frac{a}{x}+\frac{b}{y}+\frac{c}{z}=0$ bo'lsa, $\frac{x^2}{a^2}+\frac{y^2}{b^2}+\frac{z^2}{c^2}$ ni toping . Javob: 1

421 a=2017 , b= 2, c= 3 bo'lsa , $\frac{1}{(a-b)(a-c)}+\frac{1}{(b-a)(b-c)}+\frac{1}{(c-a)(c-b)}$ ifodaning qiymatini toping

1. Javob: 0

422 a=2016 , b= 2, c= -3 bo'lsa , $\frac{1}{(a-b)(a-c)}+\frac{1}{(b-a)(b-c)}+\frac{1}{(c-a)(c-b)}$ ifodaning qiymatini toping

1. Javob: 0

423 a=2018 , b= 2, c= 3 bo'lsa , $\frac{1}{(a-b)(a-c)}+\frac{1}{(b-a)(b-c)}+\frac{1}{(c-a)(c-b)}$ ifodaning qiymatini toping

1. Javob: 0

424 a=2017 , b= 2016, c= 3 bo'lsa , $\frac{1}{(a-b)(a-c)}+\frac{1}{(b-a)(b-c)}+\frac{1}{(c-a)(c-b)}$ ifodaning qiymatini toping

1. Javob: 0

425 $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=1 dagi qiymatini toping

a. Javob: 1

426 $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=-1 dagi qiymatini toping

a. Javob: 1

427 $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=2 dagi qiymatini toping

a. Javob: 4

428 $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=-2 dagi qiymatini toping

a. Javob: 4

429 $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=3 dagi qiymatini toping

a. Javob: 9

430 $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=-3 dagi qiymatini toping

a. Javob: 9

431 f(x)= $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=1 dagi qiymatini toping

a. Javob: 2

432 f(x)= $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=-1 dagi qiymatini toping

a. Javob: -2

433 f(x)= $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=2 dagi qiymatini toping

a. Javob: 4

434 f(x)= $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=-2 dagi qiymatini toping

a. Javob: -4

435 f(x)= $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=3 dagi qiymatini toping

a. Javob: 6

436 f(x)= $\frac{a^2(x-b)(x-c)}{(a-b)(a-c)}+\frac{b^2(x-a)(x-c)}{(b-a)(b-c)}+\frac{c^2(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=-3 dagi qiymatini toping

a. Javob: -6

437 $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=1 dagi qiymatini toping

a. Javob: 1

438 $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=2 dagi qiymatini toping

a. Javob: 1

439 $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=3 dagi qiymatini toping

a. Javob: 1

440 $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ ifodaning x=4 dagi qiymatini toping

a. Javob: 1

441 f(x)= $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=1 dagi qiymatini toping

1. Javob: 0

442 f(x)= $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=2 dagi qiymatini toping

1. Javob: 0

443 f(x)= $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=3 dagi qiymatini toping

1. Javob: 0

444 f(x)= $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=-1 dagi qiymatini toping

1. Javob: 0

445 f(x)= $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=-2 dagi qiymatini toping

1. Javob: 0

446 f(x)= $\frac{(x-b)(x-c)}{(a-b)(a-c)}+\frac{(x-a)(x-c)}{(b-a)(b-c)}+\frac{(x-a)(x-b)}{(c-a)(c-b)}$ funksiya hosilasining x=-3 dagi qiymatini toping

1. Javob: 0

447 $\log_9 5 = a$, $\log_{25} 8 = b$ bo'lsa , $\log_2 3$ nimaga teng bo'ladi ? Javob: $\frac{3}{4ab}$

448 $\log_9 25 = a$, $\log_{25} 8 = b$ bo'lsa , $\log_2 3$ nimaga teng bo'ladi ? Javob: $\frac{3}{2ab}$

449 $\log_3 25 = a$, $\log_{25} 16 = b$ bo'lsa , $\log_2 3$ nimaga teng bo'ladi ? Javob: $\frac{4}{ab}$

450 Agar $f(x) = 5^{-\cos x}$ bo'lsa , $f'(\frac{\pi}{2})$ ni toping Javob: $\ln 5$

451 Agar $f(x) = 5^{\cos x}$ bo'lsa , $f'(\frac{\pi}{2})$ ni toping Javob: $-\ln 5$

452 Agar $f(x) = 5^{-2\cos x}$ bo'lsa , $f'(\frac{\pi}{2})$ ni toping Javob: $2\ln 5$

453 Agar $f(x) = 5^{-3\cos x}$ bo'lsa , $f'(\frac{\pi}{2})$ ni toping Javob: $3\ln 5$

454 Agar f(x) = $5^{2\cos x}$ bo'lsa , f '($\frac{\pi}{2}$) ni toping Javob: $-2\ln 5$

455 F(x) = x^{2x} bo'lsa , shu funksiya hosilasini toping . Javob: $2*x^{2x}(\ln x+1)$

456 F(x) = x^{-2x} bo'lsa , shu funksiya hosilasini toping . Javob: $-2*x^{-2x}(\ln x+1)$

457 A(0;-1) , B(5;4) nuqtalardan o'tuvchi to'g'ri chiziq bilan 2x+y = 0 to'g'ri chiziqning kesishish nuqtasi koordinatasini toping . Javob: $(\frac{1}{3};-\frac{2}{3})$

458 A(0;3) , B(4;-1) nuqtalardan o'tuvchi to'g'ri chiziq bilan x-y +1= 0 to'g'ri chiziqning kesishish nuqtasi koordinatasini toping . Javob: (1; 2)

459 A(0;1) , B(3;-5) nuqtalardan o'tuvchi to'g'ri chiziq bilan 2x-y+3 = 0 to'g'ri chiziqning kesishish nuqtasi koordinatasini toping . Javob: $(-3;-3)$

460 A(0;-1) , B(5;4) nuqtalardan o'tuvchi to'g'ri chiziq bilan 2x-y+1 = 0 to'g'ri chiziqning kesishish nuqtasi koordinatasini toping . Javob: (-2;-3)

461 Markazi (3;4) nuqtada bo'lib koordinata boshidan o'tuvchi aylana tenglamasini toping .

Javob $(x-3)^2+(y-4)^2 = 2$

462 Markazi (2;5) nuqtada bo'lib koordinata boshidan o'tuvchi aylana tenglamasini toping .

Javob $(x-2)^2+(y-5)^2 = 29$

463 Markazi (3;5) nuqtada bo'lib koordinata boshidan o'tuvchi aylana tenglamasini toping .

Javob $(x-3)^2+(y-5)^2 = 34$

464 Markazi (4;-5) nuqtada bo'lib koordinata boshidan o'tuvchi aylana tenglamasini toping .

Javob $(x-4)^2+(y+5)^2 = 41$

465 Markazi (-3;4) nuqtada bo'lib koordinata boshidan o'tuvchi aylana tenglamasini toping .

Javob $(x+3)^2+(y-4)^2 = 25$

466 X va y butun sonlar uchun $-3\leq x<5$ va $-6\leq y<5$ bo'lsa , x^3-y^2 ning eng kichik qiymatini toping . Javob: -63

467 X va y butun sonlar uchun $-3\leq x<5$ va $-6\leq y<5$ bo'lsa , x^3-y^2 ning eng katta qiymatini toping . Javob: 124

468 X va y butun sonlar uchun $-2\leq x<4$ va $-5\leq y<1$ bo'lsa , x^3-y^2 ning eng kichik qiymatini toping . Javob: -33

469 X va y butun sonlar uchun $-2\leq x<4$ va $-5\leq y<1$ bo'lsa , x^3-y^2 ning eng katta qiymatini toping . Javob: 63

470 X va y butun sonlar uchun $-4\leq x<4$ va $-5\leq y<5$ bo'lsa , x^3-y^2 ning eng kichik qiymatini toping . Javob:-39

471 X va y butun sonlar uchun $-3\leq x<6$ va $-5\leq y<6$ bo'lsa , x^3-y^2 ning eng kichik qiymatini toping . Javob: -62

472 X va y butun sonlar uchun $-5\leq x<6$ va $-4\leq y<5$ bo'lsa , x^3-y^2 ning eng kichik qiymatini toping . Javob: -149