

- 1 900 ning natural bo'luvchilari sonini toping.
A) 27 B) 36 C) 49 D) 28
- 2 (00-10-2) 108 va 135 sonlari EKUKini 12 va 54 sonlari EKUKiga nisbatini toping?
A) 8 B) 5 C) 12 D) 6
- 3 5^{40} ni 8 ga bo'lganda qoldiq necha bo'ladi?
A) 1 B) 2 C) 4 D) 5
- 4 (00-2-4)* Hisoblang.

$$\frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99} + \frac{1}{143} + \frac{1}{195}$$

- A) $\frac{4}{15}$ B) $\frac{7}{15}$ C) $\frac{17}{45}$ D) $\frac{2}{15}$
- 5 (96-10-8) $\frac{2}{3}$ dan katta va $\frac{5}{6}$ dan kichik bo'lgan, maxraji 30 ga teng bo'lgan nechta kasr mavjud?
A) 1 B) 2 C) 4 D) 5
- 6 Agar $\frac{3}{10} + \frac{5}{20} + \frac{7}{30} + \frac{9}{40} = a$ bo'lsa,
 $\frac{2}{10} + \frac{5}{20} + \frac{8}{30} + \frac{11}{40}$
quyidagilardan qaysi biriga teng?
A) $3 - a$ B) $4 - a$ C) $2 - a$ D) $3 - 2a$
- 7 (97-10-9) Hisoblang.

$$\left(12\frac{1}{9} - 10\frac{2}{5}\right) : 38\frac{1}{2} + 2\frac{8}{9} \cdot 18$$

- A) $24\frac{1}{15}$ B) $32\frac{7}{45}$ C) $38\frac{3}{5}$ D) $52\frac{2}{45}$
- 8 Hisoblang.

$$\frac{1,27 \cdot 3,45 + 2,25}{4,54 \cdot 3,45 - 2,4}$$

- A) 1 B) $\frac{1}{2}$ C) $1\frac{1}{2}$ D) $-\frac{1}{2}$
- 9 (96-9-4) $1,011 \cdot 10^{-3} + 2,1 \cdot 10^{-4}$ ni hisoblang.
A) $3,111 \cdot 10^{-3}$ B) $3,111 \cdot 10^{-4}$
C) $3,111 \cdot 10^{-7}$ D) $1,221 \cdot 10^{-3}$
- 10 (00-2-1) Ifodaning qiymatini toping.
 $12,7 \cdot 64 + 173 \cdot 3,6 + 12,7 \cdot 36 + 17,3 \cdot 64$
A) 3000 B) 1800 C) 2000 D) 3600
- 11 (98-1-7) Hisoblang.

$$\left(\frac{2}{3} : 3 - 1\right) \cdot 1,5^2 - 0,25$$

- A) 1,5 B) -2 C) -5 D) -0,2
- 12 (96-10-3) Ifodaning qiymati nechaga teng?

$$\frac{0,15 \cdot 1,6 \cdot 4,6}{9,2 \cdot 0,03 \cdot 6,4}$$

- A) $\frac{5}{8}$ B) $\frac{2}{5}$ C) 2 D) 0,2

- 13 (99-2-1) Hisoblang.

$$\frac{7,4 + \frac{13}{17} \cdot 0,15 \cdot 1\frac{4}{13} \cdot 6\frac{2}{3}}{0,2 \cdot 5 - 0,16}$$

- A) 10 B) 8 C) 12 D) 6
- 14 (02-4-1) Hisoblang.

$$\left(2\frac{3}{4} - 0,25\right) \cdot 0,8 - 1\frac{2}{3} \cdot 1,8$$

- A) 1 B) 1,5 C) -1 D) -1,5
- 15 (96-3-68) Ushbu

$$a = 0,5(3), \quad b = \frac{47}{90}, \quad c = 1 - 0,48(1)$$

sonlar uchun quyidagi munosabatlardan qaysi biri o'rinli?

- A) $a < b < c$ B) $b < c < a$
C) $c < b < a$ D) $b < a < c$
- 16 (03-6-2) Hisoblang.

$$\frac{0, (4) + 0, (41) + 0, (42) + 0, (43)}{0, (5) + 0, (51) + 0, (52) + 0, (53)}$$

- A) $\frac{170}{211}$ B) $\frac{83}{103}$ C) $\frac{63}{107}$ D) $\frac{65}{106}$
- 17 (07-105-1) Hisoblang.

$$\frac{0,202 - 0,004}{\frac{8}{9} \cdot 81 \cdot 0,125}$$

- A) 0,99 B) 0,099 C) 0,022 D) 0,0099
- 18 (97-12-2) Natural sonni 18 ga bo'lganda, bo'linma 15 ga, qoldiq 3 ga teng bo'ldi. Bo'linuvchini toping.
A) 173 B) 243 C) 253 D) 273
- 19 (02-1-3) Sonning uchdan bir qismini toping.

$$\frac{(-2) \cdot (-3)^{17} - (-3)^{16}}{9^7 \cdot 15}$$

- A) 1 B) 3 C) 2 D) 9
- 20 Hisoblang.
 $\left(1 - \frac{1}{2}\right)\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right) \cdots \left(1 - \frac{1}{100}\right)$
A) $\frac{1}{2}$ B) $\frac{1}{10}$ C) 2 D) $\frac{1}{100}$

- 21 5200 000 sonining nechta natural bo'luvchisi bor?
A) 48 B) 56 C) 64 D) 96
- 22 (98-5-6) -5,2 bilan 10,4 orasida nechta butun son bor?
A) 16 B) 10 C) 15 D) 12
- 23 (98-7-11) Son o'qida -4 dan 2,3 birlik masofada joylashgan sonlarni aniqlang.
A) -6,3 B) -6,3 va 1,7
C) 6,3 va 1,7 D) -6,3 va -1,7
- 24 (97-8-2) 358 ni qanday songa bo'lganda bo'linma 17 va qoldiq 1 bo'ladi?
A) 19 B) 21 C) 22 D) 20

25 (98-11-3) Hisoblang.

$$\frac{0,8(3) - 0,4(6)}{0, (3)}$$

A) 1,1 B) $1\frac{1}{3}$ C) 3 D) 0,3

26 (99-8-19) Ikki sonning ko'paytmasi 294 ga, ularning eng katta umumiy bo'luvchisi 7 ga teng. Bu sonlarning eng kichik umumiy karralisini toping.
A) 42 B) 52 C) 56 D) 49

27 (99-3-6) 4^{12} ni 9 ga bo'lganda qoldiq necha bo'ladi?
A) 1 B) 2 C) 4 D) 7

28 $27 + 1029 + 10031 + 100033 + 1000035$ sonni 25 ga bo'lgandagi qoldiqni toping.
A) 1 B) 4 C) 8 D) 5

29 (99-6-7) Ifodaning qiymati qanday raqam bilan tugaydi?

$$11^6 + 14^6 - 13^3 - 8$$

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

30 (99-5-1)* Hisoblang.

$$\frac{1}{12} + \frac{1}{20} + \frac{1}{30} + \frac{1}{42} + \dots + \frac{1}{182}$$

A) $\frac{11}{42}$ B) $\frac{10}{33}$ C) $\frac{1}{4}$ D) $\frac{12}{35}$

31 (99-4-10) Sonlarni kamayish tartibida joylashtiring?

$$a = \frac{7}{36}; \quad b = \frac{11}{34}; \quad c = \frac{7}{32}; \quad d = \frac{9}{25}$$

A) $a > b > c > d$ B) $b > a > d > c$
C) $d > a > b > c$ D) $d > b > c > a$

32 (98-8-5) Hisoblang.

$$\frac{3}{16} + \frac{1}{16} \cdot (0,312 : 0,3 - 3,15 \cdot 1,6)$$

A) $\frac{1}{4}$ B) $\frac{3}{16}$ C) $-\frac{1}{16}$ D) $-\frac{1}{8}$

33 (98-1-7) Hisoblang.

$$\left(\frac{2}{3} : 3 - 1\right) \cdot 1,5^2 - 0,25$$

A) 1,5 B) -2 C) -5 D) -0,2

34 (98-12-23) Hisoblang.

$$\frac{5 \cdot 2^{32} - 4 \cdot 2^{30}}{4^{16}}$$

A) 4 B) 2 C) 5 D) 16

35 (98-1-14) Soddashtiring.

$$a(b-c) + b(c-a) - c(b-a)$$

A) $-2ac$ B) $2ab$ C) 0 D) 2

36 (99-4-13) Soddashtiring.

$$\frac{4}{9} \cdot \left(4\frac{1}{2}y - 1\frac{1}{2}\right) - \frac{2}{7} \cdot \left(1\frac{1}{6} - 3\frac{1}{2}y\right)$$

A) $0,2y - 1$ B) $2y + 1$ C) $3y - 1$ D) $y - 1$

37 (97-12-9) Ifodani soddashtirgandan keyin nechta haddan iborat bo'ladi?

$$(y^3 - 1)^2 + (y^2 + 1)(y^4 - y^2 + 1)$$

A) 4 B) 5 C) 6 D) 3

38 (02-5-7)* Agar $a - \frac{1}{a} = \sqrt{7}$ bo'lsa, $a^4 + \frac{1}{a^4}$ ning qiymatini hisoblang.

A) 81 B) 79 C) 49 D) 63

39 (96-7-18) Ko'paytuvchilarga ajrating.

$$(a^2 + 16)^2 - 64a^2$$

A) $(a^2 - 8) \cdot (a^2 + 4)$ B) $(a - 2)^2 \cdot (a + 2)^2$
C) $(a - 4)^2 \cdot (a + 4)^2$ D) $a^2 \cdot (a^2 - 60)$

40 $(x + 3y)^3 + (x - 3y)^3 - 52xy^2$ ko'phadni ko'paytuvchilarga ajrating.

A) $2x(x^2 + y^2)$ B) $2y(x^2 + y^2)$
C) $2x(x^2 - y^2)$ D) $x(x^2 - y^2)$

41 (02-8-2) Soddashtiring.

$$\frac{1 - b^{-1} + b^{-2}}{1 - b + b^2}$$

A) b^{-1} B) b^{-2} C) b^2 D) $b + 1$

42 (02-9-14) Soddashtiring.

$$\left(\frac{2}{1-x^2} - \frac{2}{(x-1)^2}\right) \cdot (1-x)^2 - \frac{4}{1+x}$$

A) 4 B) -4 C) 0 D) $\frac{1-x}{1+x}$

43 (98-10-12) Soddashtiring.

$$\frac{x^3 + y^3}{x^2 - xy + y^2} - \frac{x^2 - y^2}{x + y}$$

A) $2x$ B) $2y$ C) $-2y$ D) $-2x$

44 (03-6-7) Soddashtiring.

$$\frac{x^3y + 2x^2y - 3xy}{x^3 + 5x^2 + 6x} : \frac{1-x^2}{x^2 + 3x + 2}$$

A) $\frac{y}{x}$ B) $-x$ C) $-y$ D) x

45 (00-7-13) Soddashtiring.

$$(a^3 - 3a^2b + 3ab^2 - b^3) \cdot (a+b) : \left(\frac{a^3 + b^3}{a+b} - ab\right)$$

A) $b^2 - a^2$ B) $a^2 - b^2$ C) $(a-b)^2$ D) $(a+b)^2$

46 (01-8-18) Soddashtiring.

$$\frac{a^2}{a^2 - 1} + \frac{1}{a+1} : \left(\frac{1}{2-a} + \frac{2}{a^2 - 2a}\right)$$

A) $\frac{a}{a^2 - 1}$ B) $\frac{1}{a-1}$ C) $\frac{2a^2 - a}{a^2 - 1}$ D) 1

47 (96-10-13) Hisoblang.

$$\frac{4,5^2 - 1,5^2}{0,3 \cdot 0,7 - 0,3}$$

A) -20 B) 20 C) 200 D) -200

48 (01-8-5) Hisoblang.

$$\frac{0,6 \cdot 0,8 + 0,6 \cdot 1,2}{0,2^2 - 0,4^2}$$

A) -10 B) 10 C) -0,1 D) -100

49 (00-10-12) Soddalashtiring.

$$\frac{5 \cdot 2^{k-2} + 10 \cdot 2^{k-1}}{10^{k+2}}$$

A) $4^{-1} \cdot 5^{-k}$ B) $4^{-2} \cdot 5^{-k}$
C) $4 \cdot 5^{-k}$ D) $2^{-1} \cdot 5^{-k}$

50 (98-8-11) Ushbu $\frac{3n-1}{n+2}$ ifoda n ning nechta butun qiymatida natural son bo'ladi?

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

51 (97-10-1) Hisoblang:

$$27 \cdot 23 - 24 \cdot 23 + 21 \cdot 19 - 18 \cdot 19 + 17 \cdot 11 - 14 \cdot 11$$

A) 165 B) 159 C) 143 D) 203

52 (00-10-2) 108 va 135 sonlari EKUKini 12 va 54 sonlari EKUKiga nisbatini toping?

A) 8 B) 5 C) 12 D) 6

53 (99-3-5) 36455468 sonni 2, 4, 5, 10 va 25 ga bo'lganda hosil bo'ladigan qoldiqlar yig'indisini toping?

A) 18 B) 29 C) 15 D) 14

54 (97-11-7) Hisoblang.

$$0,2 + 1,8 \cdot \left(\frac{4}{9} - 1\frac{1}{2} + \frac{1}{6}\right)$$

A) -1,4 B) 1,8 C) 0,04 D) -0,36

55 (98-1-10) Sonlarni kamayish tartibida joylashtiring.

$$a = 2, (4), \quad b = 2,5 - \frac{1}{8}, \quad c = 1,2 : 0,5$$

A) $a > b > c$ B) $a > c > b$
C) $b > a > c$ D) $c > a > b$

56 (99-4-13) Soddalashtiring.

$$\frac{4}{9} \cdot \left(4\frac{1}{2}y - 1\frac{1}{2}\right) - \frac{2}{7} \cdot \left(1\frac{1}{6} - 3\frac{1}{2}y\right)$$

A) $0,2y - 1$ B) $2y + 1$ C) $3y - 1$ D) $y - 1$

57 (00-6-9) Ko'paytuvchilarga ajrating.

$$b^2 + ab - 2a^2 - b + a$$

A) $(a-b)(2a-b)$ B) $(a+b)(2a-b-1)$
C) $(a-b)(2a-b-1)$ D) $(b-a)(2a+b-1)$

58 (01-7-7) n ning nechta butun qiymatida $\frac{n^2 - n + 3}{n + 1}$ kasr butun son bo'ladi?

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

59 (02-6-26) Hisoblang.

$$\frac{1}{\sqrt{7} - \sqrt{6}} - \frac{3}{\sqrt{6} - \sqrt{3}} - \frac{4}{\sqrt{7} + \sqrt{3}}$$

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

60 (01-7-4) Soddalashtiring.

$$4 + 5\sqrt{2} + \frac{\sqrt{75}}{\sqrt{3} - \sqrt{6}}$$

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

61 (97-3-14) Ifodaning qiymatini toping.

$$\sqrt{\frac{68^3 - 32^3}{36} + 68 \cdot 32}$$

A) $16\frac{2}{3}$ B) 85 C) 100 D) $25\frac{5}{6}$

62 (03-11-74) Hisoblang.

$$\sqrt{17 - 12\sqrt{2}} \cdot (6 + 4\sqrt{2})$$

A) $\sqrt{2}$ B) $-\sqrt{2}$ C) $\sqrt{3} + \sqrt{8}$ D) 2

63 (02-10-43) Hisoblang.

$$\sqrt{52 - 30\sqrt{3}} - \sqrt{52 + 30\sqrt{3}}$$

A) -10 B) 10 C) -8 D) 8

64 (00-10-4) Hisoblang.

$$\sqrt{21 - 2\sqrt{21 + 2\sqrt{19 - 6\sqrt{2}}}}$$

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

65 (02-11-12) Soddalashtiring.

$$\left(\frac{1 + \sqrt{x+x}}{x\sqrt{x-1}}\right)^{-1} - x^{\frac{1}{2}}$$

A) $\sqrt{x} + 1$ B) 1 C) $\sqrt{x} - 1$ D) -1

66 (00-1-20) Soddalashtiring.

$$\left(\frac{1}{\sqrt{a+1} + \sqrt{a}} + \frac{1}{\sqrt{a} - \sqrt{a-1}}\right)(\sqrt{a+1} - \sqrt{a-1})$$

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

67 (01-10-1) Agar $a = \sqrt{2}$ va $b = \sqrt[3]{3}$ bo'lsa,

$$\sqrt{a^2 - 2ab + b^2} + \sqrt{a^2 + 2ab + b^2}$$

ning qiymatini hisoblang.

A) $\sqrt{8}$ B) $\sqrt[3]{12}$ C) $\sqrt{18}$ D) $\sqrt[3]{24}$

68 (00-8-53) Soddalashtiring.

$$\frac{a^{\frac{3}{4}} - 36a^{\frac{1}{4}}}{a^{\frac{1}{2}} - 6a^{\frac{1}{4}}}$$

A) $\sqrt[4]{a} - 6$ B) $\sqrt[4]{a} + 6$ C) $\sqrt{a} - 6$ D) $\sqrt{a} + 6$

69 (98-5-18) Soddalashtiring.

$$\frac{(5b^{\frac{1}{4}} + 10)(b^{\frac{3}{4}} - 2b^{\frac{1}{2}})}{b - 4b^{\frac{1}{2}}}$$

A) $1\frac{1}{4}$ B) $\frac{1}{5}$ C) 1 D) 5

70 (01-6-32) Ushbu

$$\left(\frac{x^{\frac{3}{2}} - y^{\frac{3}{2}}}{x^{\frac{1}{2}} - y^{\frac{1}{2}}} - x - y\right) \cdot x^{\frac{1}{3}} \cdot y^{\frac{1}{3}}$$

ifodani soddalashtiring, keyin $x = 16^{\frac{1}{3}}$ va $y = 4^{\frac{1}{3}}$ bo'lgandagi qiymatini hisoblang.

A) 2 B) 4 C) $2\sqrt[3]{4}$ D) 3

71 (01-9-7) Hisoblang.

$$\sqrt{4-2\sqrt{2}} \cdot \sqrt[4]{6+4\sqrt{2}}$$

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

72 (02-7-44) Hisoblang.

$$\sqrt[3]{2000 \cdot 1998 - 1997 \cdot 2001 + 5}$$

A) 2 B) 3 C) $\sqrt[3]{17}$ D) 4

73 Hisoblang.

$$\sqrt[3]{4\sqrt{2} \cdot \sqrt[3]{4\sqrt{2} \dots}}$$

A) $\sqrt{6}$ B) $\sqrt[3]{8}$ C) $\sqrt[3]{8}$ D) 2

74 (02-12-34) Sonlarni o'sish tartibida joylashtiring.

$$a = \sqrt[3]{2}, \quad b = \sqrt[3]{3}, \quad c = \sqrt[3]{5}$$

A) $a < b < c$ B) $c < b < a$
C) $a < c < b$ D) $b < a < c$

75 Hisoblang.

$$\sqrt[6]{5-2\sqrt{6}} \cdot \sqrt[3]{5+\sqrt{24}} \cdot \sqrt[3]{\sqrt{2}-\sqrt{3}}$$

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

76 (00-3-5) 72 va 96 sonlari EKUKining EKUBiga nisbatini toping?

A) 10 B) 0,1 C) 9 D) 12

77 (99-3-6) 4^{12} ni 9 ga bo'lganda qoldiq necha bo'ladi?

A) 1 B) 2 C) 4 D) 7

78 (01-1-2)* Hisoblang.

$$4 - 7 + 8 - 11 + 12 - 15 + \dots + 96 - 99$$

A) -75 B) -80 C) -72 D) -63

79 (00-9-10)* Hisoblang.

$$\frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99} + \dots + \frac{1}{255}$$

A) $\frac{7}{51}$ B) $\frac{2}{15}$ C) $\frac{2}{25}$ D) $\frac{3}{35}$

80 (97-11-3) Hisoblang.

$$\left(3\frac{17}{36} - 5\frac{7}{12}\right) : \frac{2}{9} - \frac{3}{26} \cdot 4\frac{1}{3}$$

A) -9 B) $8\frac{1}{9}$ C) 9 D) -10

81 (99-2-1) Hisoblang.

$$\frac{7,4 + \frac{13}{17} \cdot 0,15 \cdot 1\frac{4}{13} \cdot 6\frac{2}{3}}{0,2 \cdot 5 - 0,16}$$

A) 10 B) 8 C) 12 D) 6

82 Sonlarni o'sish tartibida joylashtiring.

$$a = 0,8(87), \quad b = \frac{87}{99}, \quad c = 1 - 0,(13)$$

A) $a < c < b$ B) $a < b < c$
C) $b < a < c$ D) $c < b < a$

83 a va b natural sonlar $\frac{5a-b}{b} = 11$ munosabatni qanoatlantirsa, $a+b$ ifodaning eng kichik qiymati nimaga teng bo'ladi?

A) 17 B) 16 C) 14 D) 13

84 (02-5-7)* Agar $a - \frac{1}{a} = \sqrt{7}$ bo'lsa, $a^4 + \frac{1}{a^4}$ ning qiymatini hisoblang.

A) 81 B) 79 C) 49 D) 63

85 (01-5-6) Soddashtiring.

$$\frac{x}{x^2+y^2} - \frac{y \cdot (x-y)^2}{x^4-y^4}$$

A) $\frac{1}{x+y}$ B) $\frac{1}{x-y}$ C) $x+y$ D) $x-y$

86 (00-10-74) Kasrni qisqartiring.

$$\frac{2^{m+1} + 2^{-m+1}}{(4^m + 1)(3^{m+2} + 3^{m+1})}$$

A) $0,5 \cdot 6^{-m}$ B) $\left(\frac{2}{3}\right)^m$ C) 6^{-m-1} D) 3^m

87 (99-5-11) Agar $\sqrt{t^5+3} - \sqrt{t^5-2} = 1$ bo'lsa,

$$\sqrt{t^5+3} + \sqrt{t^5-2}$$

ning qiymati nechaga teng bo'ladi?

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

88 (02-12-13) Soddashtiring.

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

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

89 (02-10-7) Soddashtiring.

$$\left(\frac{9}{a+8} - \frac{a^{\frac{1}{3}}+2}{a^{\frac{2}{3}}-2a^{\frac{1}{3}}+4}\right) \cdot \frac{a^{\frac{4}{3}}+8a^{\frac{1}{3}}}{1-a^{\frac{2}{3}}} + \frac{5-a^{\frac{2}{3}}}{1+a^{\frac{1}{3}}}$$

A) 5 B) $\frac{1}{1-a}$ C) $\frac{2}{1-a^{\frac{2}{3}}}$ D) 4

90 Tenglamani yeching.

$$\frac{x+2}{3} + \frac{7x-1}{2} = 3,8(3)x + 0,1(6)$$

A) \emptyset B) $x \in R$ C) 10 D) -10

91 (01-1-10) a ning qanday qiymatida

$$(a^2+2)x = a(x-a) + 2$$

tenglamaning ildizlari cheksiz ko'p bo'ladi?

A) $-\sqrt{2}$ B) $\sqrt{2}$ C) $\sqrt{2}; -\sqrt{2}$ D) \emptyset

92 (01-8-4) Tenglamani yeching.

$$\left(4\frac{3}{8}x + 5\frac{1}{16}\right) \cdot \frac{4}{15} = \frac{5}{12}x + 2\frac{2}{5}$$

A) $\frac{1}{15}$ B) $1\frac{2}{5}$ C) $\frac{3}{185}$ D) $2\frac{1}{5}$

93 (03-11-55) Proporsiyaning noma'lum hadini toping.

$$12\frac{1}{2} : 2\frac{1}{2} = 16\frac{2}{3} : y$$

A) $3\frac{1}{3}$ B) $3\frac{2}{3}$ C) $3\frac{1}{6}$ D) $3\frac{5}{6}$

94 (01-10-2) Agar x_1 va x_2 lar $x^2+x-5=0$ tenglamaning ildizlari bo'lsa, $x_1^2x_2^4 + x_1^4x_2^2$ ning qiymatini hisoblang.

A) 225 B) 145 C) 125 D) 275

95 (02-11-14) Ildizlaridan biri $3 + \frac{\sqrt{2}}{2}$ ga teng bo'lgan ratsional koeffitsiyentli kvadrat tenglama tuzing.

A) $x^2 - 3x + 9 = 0$ B) $x^2 - 6x + 17 = 0$
C) $x^2 - 12x + 9 = 0$ D) $2x^2 - 12x + 17 = 0$

96 (97-12-24) Ushbu

$$x^2 + px - 12 = 0$$

tenglamaning ildizlaridan biri 2 ga teng. p : (-12) nimaga teng?

- A) $\frac{1}{3}$ B) $-\frac{5}{12}$ C) $\frac{2}{3}$ D) $-\frac{1}{3}$

97 (00-7-47) m ning qanday qiymatlarida

$$x^2 - 4mx + 48 = 0$$

tenglamaning ildizlaridan biri boshqasidan 3 marta katta bo'ladi?

- A) 2 B) ± 4 C) ± 3 D) 4

98 (98-11-18) Tenglamaning yechimlari quyidagi oraliqlarning qaysi birida joylashgan?

$$\frac{x^2 + 1}{x} + \frac{x}{x^2 + 1} = -2,5$$

- A) $(-\infty; -1)$ B) $[-1; 8)$ C) $[2; 8)$ D) $[3; 8)$

99 (02-7-41) Tenglama ildizlari yig'indisini toping.

$$(x + 1)(x + 2)(x + 4)(x + 5) = 40$$

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

100 (03-6-8) Agar

$$\frac{4x^2 - 4xy + 3y^2}{2y^2 + 2xy - 5x^2} = 1$$

bo'lsa, $\frac{x + y}{x - y}$ ning qiymatini toping.

- A) 2 B) -2 C) $\frac{1}{2}$ D) $-\frac{1}{2}$

101 (96-3-61) 630 va 198 ning umumiy bo'luvchilari nechta?

- A) 5 B) 6 C) 4 D) 7

102 (99-8-25) Natural sonni 3 ga bo'lganda 1 qoldiq hosil bo'ladi. Bu sonning kvadratini 6 ga bo'lganda, qoldiq qanday sonlar bo'lishi mumkin?

- A) 1 yoki 4 B) 1 yoki 3 C) 2 D) 5

103 (98-3-8) Hisoblang.

$$3\frac{1}{3} \cdot 2\frac{1}{4} \cdot \left(-\frac{1}{2}\right) \cdot \frac{4}{5}$$

- A) 3 B) -3 C) 2,5 D) -2,5

104 (96-10-5) Hisoblang.

$$\left(5\frac{1}{3} - 3, 2\right) : 2\frac{2}{3} + 1\frac{2}{5}$$

- A) $2\frac{1}{2}$ B) 2,2 C) 3,2 D) 2

105 Sonlarni o'sish tartibida joylashtiring.

$$a = -0,1(3), \quad b = -0,13(5), \quad c = -0,103(5)$$

- A) $a < c < b$ B) $a < b < c$
C) $b < a < c$ D) $c < b < a$

106 (01-8-8) Ko'paytuvchilarga ajrating.

$$(a + b)(a + b + 2) - (a - b)(a - b - 2)$$

- A) $2(a + b)(b + 1)$ B) $4a(b + 1)$
C) $2a(b - 1)$ D) $4a(b - 1)$

107 (02-9-14) Soddalashtiring.

$$\left(\frac{2}{1-x^2} - \frac{2}{(x-1)^2}\right) \cdot (1-x)^2 - \frac{4}{1+x}$$

- A) 4 B) -4 C) 0 D) $\frac{1-x}{1+x}$

108 (99-10-15) Hisoblang.

$$\left(\frac{1}{\sqrt{3} + \sqrt{2}} + \frac{1}{2 + \sqrt{3}}\right) \cdot (2 + \sqrt{2})$$

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

109 (98-7-14) Hisoblang.

$$\left(\sqrt{3 - \sqrt{5}} + \sqrt{3 + \sqrt{5}}\right)^2 \cdot 0,5^{-2}$$

- A) 38 B) 30 C) 40 D) 44

110 (99-10-14) Hisoblang.

$$\frac{\sqrt{3 + 2\sqrt{2}} + \sqrt{3 - 2\sqrt{2}}}{4\sqrt{2}}$$

- A) $\frac{\sqrt{2}}{4}$ B) 0,5 C) $\frac{\sqrt{2}}{2}$ D) 0,75

111 (96-13-12) Ushbu

$$(-3x + \alpha y)(\beta x - 2y) = \gamma x^2 + 7xy + 2y^2$$

ayniyatdagi noma'lum koeffitsiyentlardan biri β ni toping.

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

112 (99-4-12) Tenglamani yeching.

$$0, (3)x - 3 = x - 2(0,5 + 0, (3)x)$$

- A) 20 B) \emptyset C) 0,2 D) 0,5

113 (00-3-18) Agar

$$x^2 - 3x - 6 = 0$$

tenglamaning ildizlari x_1 va x_2 bo'lsa, $\frac{1}{x_1^3} + \frac{1}{x_2^3}$ ni toping.

- A) $\frac{1}{3}$ B) 0,5 C) -0,5 D) -0,375

114 (02-7-4) n ning qanday qiymatlarida

$$x^2 - 12x + n = 0$$

tenglama ildizlaridan biri ikkinchisidan $2\sqrt{5}$ ga ortiq bo'ladi?

- A) 31 B) 30 C) 3 D) 29

115 (03-3-28) Tenglama ildizlari ko'paytmasini toping.

$$\frac{3x^2 + 8x - 3}{x + 3} = x^2 - x + 2$$

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

116 (97-6-11) $(x; y)$ sonlar jufti

$$\begin{cases} x + 2y - 3 = 0 \\ 2x - 3y + 8 = 0 \end{cases}$$

tenglamalar sistemasining yechimi, $x + y$ ni hisoblang.

- A) -1 B) 1 C) 3 D) 4,5

117 (02-12-2) Agar $x + y = 4$, $y + z = 8$ va $x + z = 6$ bo'lsa, $x - y + 2z$ ning qiymatini hisoblang.

- A) 8 B) 6 C) 7 D) 10

118 (98-3-24) k ning qanday qiymatlarida

$$\begin{cases} (k^2 - k - 1)x + 2,5y = 5 \\ 2x + y = -k \end{cases}$$

sistemaning birorta ham yechimi bo'lmaydi?

- A) -2 B) -2 va 3 C) 3 D) 4 va 3

119 (96-9-70) Sistemaning yechimini toping.

$$\begin{cases} x^2 + y^2 - 2xy = 16 \\ x + y = -2 \end{cases}$$

- A) (1; -3) B) (-3; 1)
C) (0; -2) D) (1; -3) va (-3; 1)

120 (97-8-20) Tenglamalar sistemasini yeching.

$$\begin{cases} y + 4 = 2 \\ x^2 y = -2 \end{cases}$$

- A) (1; -2) B) (-1; -2)
C) (1; 2) D) (-1; -2) va (1; -2)

121 (98-12-64) Agar

$$\begin{cases} x + y = 3 \\ x \cdot y = 1 \end{cases}$$

bo'lsa, $x^5 \cdot y + x \cdot y^5$ ni hisoblang.

- A) 47 B) 29 C) 51 D) 24

122 (03-12-3) Sistemadan ab ni toping

$$\begin{cases} b + a = 18 \\ a^2 + b^2 = 170 \end{cases}$$

- A) 45 B) 72 C) 77 D) 80

123 (97-4-25) Agar

$$\begin{cases} x^3 - y^3 - 3x^2y = 5 \\ xy^2 = 1 \end{cases}$$

bo'lsa, $\frac{x-y}{2}$ ni hisoblang.

- A) 2 B) 1 C) 3 D) 4,5

124 (99-6-37) Agar $ab = 18$, $bc = 25$ va $ac = 8$ bo'lsa, \sqrt{abc} nimaga teng.

- A) $2\sqrt{15}$ B) $15\sqrt{2}$ C) $6\sqrt{5}$ D) $8\sqrt{3}$

125 (02-8-11)

$$\begin{cases} xy + x + y = 11 \\ x^2y + y^2x = 30 \end{cases}$$

tenglamalar sistemasi uchun $x + y$ ning eng katta qiymatini toping.

- A) 6 B) 5 C) 7 D) 4

126 (99-6-7) Ifodaning qiymati qanday raqam bilan tugaydi?

$$11^6 + 14^6 - 13^3 - 8$$

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

127 (98-4-1) Hisoblang.

$$(1,6^2 - 2,2 \cdot \frac{3}{11}) : 1,4$$

- A) 1,4 B) 1,2 C) 1,5 D) 1,6

128 Hisoblang.

$$\frac{0,3}{0,44} + \frac{19}{10} \\ 1,9 + \frac{0,3}{0,44}$$

- A) $\frac{4}{9}$ B) 1 C) 3 D) $\frac{11}{9}$

129 (03-7-10) Soddashtiring.

$$\frac{x^3y + 2x^2y - 3xy}{x^3 + 5x^2 + 6x} : \frac{x^2 - 1}{x^2 + 3x + 2}$$

- A) $\frac{y}{x}$ B) $-x$ C) $-y$ D) y

130 (99-10-14) Hisoblang.

$$\frac{\sqrt{3+2\sqrt{2}} + \sqrt{3-2\sqrt{2}}}{4\sqrt{2}}$$

- A) $\frac{\sqrt{2}}{4}$ B) 0,5 C) $\frac{\sqrt{2}}{2}$ D) 0,75

131 (02-10-6) a, b va c ning qanday qiymatida

$$\frac{1}{(x+1)^2 \cdot (x+2)} = \frac{a}{x+1} + \frac{b}{(x+1)^2} + \frac{c}{x+2}$$

tenglik ayniyat bo'ladi?

- A) -1; 1; 1 B) 0; 1; 2
C) 1; -1; $\frac{1}{2}$ D) 2; -2; $\frac{1}{2}$

132 (00-3-11) k ning qanday qiymatida

$$k(k+6)x = k + 7(x+1)$$

tenglama yechimga ega bo'lmaydi?

- A) 1 va 7 B) 1 C) 7 D) 1 va -7

133 (03-3-14) m ning qanday qiymatlarida

$$(m-1)x^2 + 2mx + 3m - 2$$

kvadrat uchhadni to'la kvadrat shaklida tasvirlash mumkin?

- A) 2; $\frac{1}{2}$ B) -2 C) 2 D) $\frac{1}{2}$

134 (98-12-63) Tenglama ildizlari yig'indisini toping.

$$\frac{2}{3-x} + \frac{1}{2} = \frac{6}{x(3-x)}$$

- A) 4 B) 7 C) 3 D) 10

135 (02-12-2) Agar $x + y = 4$, $y + z = 8$ va $x + z = 6$ bo'lsa, $x - y + 2z$ ning qiymatini hisoblang.

- A) 8 B) 6 C) 7 D) 10

136 (01-2-15) k ning qanday qiymatida

$$\begin{cases} 3x + (k-1)y = k+1 \\ (k+1)x + y = 3 \end{cases}$$

tenglamalar sistemasi cheksiz ko'p yechimga ega bo'ladi?

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

137 (98-5-22) Agar

$$\begin{cases} x^2 - 2xy + y^2 = 9 \\ xy = 10 \end{cases}$$

bo'lsa, $|x + y|$ ni hisoblang.

- A) 7 B) 6 C) 5 D) 8

- 138 (00-4-33) Tengsizlikning eng katta butun manfiy va eng kichik butun musbat yechimlari ko'paytmasini toping.

$$\frac{x^4 - 3x^3 + 2x^2}{30 - x^2 - x} < 0$$

- A) -30 B) -35 C) -36 D) -42

- 139 (02-10-13) Tengsizlikning manfiy bo'lmagan butun yechimlarini toping.

$$\frac{x+3}{x^2-4} - \frac{1}{x+2} < \frac{2x}{2x-x^2}$$

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

- 140 (99-10-9) Tenglamani manfiy ildizlari nechta?

$$\left(\frac{y}{6} + \frac{y}{3} + \frac{y}{2}\right)(y^2 - 3|y| + 2) = 0$$

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

- 141 (01-3-5) Tenglama ildizlari yig'indisini toping?

$$|x| = x^2 + x - 4$$

- A) $2 - \sqrt{5}$ B) $1 - 2\sqrt{5}$ C) $-1 - \sqrt{5}$ D) $1 - \sqrt{5}$

- 142 (03-5-20) Tengsizlikni yeching.

$$1 < |x - 2| < 3$$

- A) $(-1; 1) \cup (3; 5)$ B) $(-1; 1)$
C) $(3; 5)$ D) $(-1; 5)$

- 143 (98-1-23) Agar

$$\begin{cases} |x| + y = 2 \\ 3x + y = 4 \end{cases}$$

bo'lsa, $x + y$ ning qiymatini toping.

- A) 3 B) 1 C) 2,5 D) 2

- 144 (00-8-26) Agar

$$\sqrt{25 - x^2} + \sqrt{15 - x^2} = 5$$

bo'lsa, $\sqrt{25 - x^2} - \sqrt{15 - x^2}$ ifodaning qiymatini toping.

- A) 2 B) 3 C) 5 D) 6

- 145 (01-5-9) Tenglama ildizlari yig'indisini toping.

$$(x^2 - 4)\sqrt{x+1} = 0$$

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

- 146 (00-6-33) Agar

$$\sqrt{3x^2 - 6x + 16} = 2x - 1$$

bo'lsa, $x^2 \cdot (x + 2)$ ning qiymatini toping.

- A) -75 B) -45 C) 15 D) 45

- 147 (03-7-20) Tenglamani yeching.

$$\sqrt[3]{x} \sqrt[3]{x} \sqrt[3]{x} \sqrt[3]{x} \dots = 8$$

- A) 56 B) 48 C) 60 D) 64

- 148 (02-1-68) Tengsizlikni yeching.

$$(x + 3)\sqrt{10 - 3x - x^2} \geq 0$$

- A) $[-3; \infty)$ B) $[2; \infty)$
C) $[-3; 2]$ D) $\{-5\} \cup [-3; 2]$

- 149 (02-9-28) Tengsizlikning butun yechimlari nechta?

$$\frac{\sqrt{3 + 2x - x^2}}{x - 2} \leq 0$$

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

- 150 (02-12-35) Qanday eng kichik butun son

$$\sqrt{12 - x} < 2$$

tengsizlikni qanoatlantiradi?

- A) 8 B) 9 C) 6 D) 10

- 151 Hisoblang.

$$\frac{1}{3 \cdot 8} + \frac{1}{8 \cdot 13} + \frac{1}{13 \cdot 18} + \frac{1}{18 \cdot 23} + \frac{1}{23 \cdot 28}$$

- A) $\frac{5}{84}$ B) $\frac{7}{96}$ C) $\frac{25}{84}$ D) $\frac{15}{84}$

- 152 (99-4-16)* Ko'paytuvchilarga ajrating.

$$(a + b + 2) \cdot (a + b) - (a - b)^2 + 1$$

- A) $(a + b)(2a - 1)$ B) $(a + 1)(b + 1)$
C) $2b(a + 1)$ D) $(2b + 1)(2a + 1)$

- 153 (01-8-18) Soddalashtiring.

$$\frac{a^2}{a^2 - 1} + \frac{1}{a + 1} : \left(\frac{1}{2 - a} + \frac{2}{a^2 - 2a}\right)$$

- A) $\frac{a}{a^2 - 1}$ B) $\frac{1}{a - 1}$ C) $\frac{2a^2 - a}{a^2 - 1}$ D) 1

- 154 (03-11-74) Hisoblang.

$$\sqrt{17 - 12\sqrt{2}} \cdot (6 + 4\sqrt{2})$$

- A) $\sqrt{2}$ B) $-\sqrt{2}$ C) $\sqrt{3 + \sqrt{8}}$ D) 2

- 155 (00-1-20) Soddalashtiring.

$$\left(\frac{1}{\sqrt{a+1} + \sqrt{a}} + \frac{1}{\sqrt{a} - \sqrt{a-1}}\right)(\sqrt{a+1} - \sqrt{a-1})$$

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

156 (98-1-20) m ning qanday qiymatlarida

$$m(mx - 1) = 9x + 3$$

tenglama cheksiz ko'p ildizga ega?

- A) $m = 0$ B) $m = 3$
C) $m = -3$ D) $m = -1$

157 (01-8-4) Tenglamani yeching.

$$\left(4\frac{3}{8}x + 5\frac{1}{16}\right) \cdot \frac{4}{15} = \frac{5}{12}x + 2\frac{2}{5}$$

- A) $\frac{1}{15}$ B) $1\frac{2}{5}$ C) $\frac{3}{185}$ D) $2\frac{1}{5}$

158 (03-7-78) m ning qanday qiymatlarida

$$4x^2 - (3 + 2m)x + 2 = 0$$

tenglamaning ildizlaridan biri ikkinchisidan sakkiz marta kichik bo'ladi?

- A) 3 B) -6 C) -6; 3 D) 3; 5

159 (02-11-20) Tenglama ildizlari yig'indisini toping.

$$\frac{3x^2 + 8x - 3}{x + 3} = x^2 - x + 2$$

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

160 (98-12-64) Agar

$$\begin{cases} x + y = 3 \\ x \cdot y = 1 \end{cases}$$

bo'lsa, $x^5 \cdot y + x \cdot y^5$ ni hisoblang.

- A) 47 B) 29 C) 51 D) 24

161 (02-5-9) Tenglama ildizlari ko'paytmasini toping.

$$(2|x| - 1)^2 = |x|$$

- A) $\frac{1}{16}$ B) $-\frac{1}{16}$ C) $\frac{1}{4}$ D) $-\frac{1}{4}$

162 (03-5-20) Tengsizlikni yeching.

$$1 < |x - 2| < 3$$

- A) $(-1; 1) \cup (3; 5)$ B) $(-1; 1)$
C) $(3; 5)$ D) $(-1; 5)$

163 (01-7-20) Tenglamalar sistemasi nechta yechimga ega?

$$\begin{cases} |x| + |y| = 1 \\ x^2 + y^2 = 4 \end{cases}$$

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

164 (00-5-29) Tenglamani yeching.

$$\sqrt{x^2 - x - 2} = x - 3$$

- A) 5 B) 2,2 C) 4 D) \emptyset

165 (02-1-48) Tengsizlikni yeching.

$$\sqrt{x+1} < 4$$

- A) $(-\infty; 15)$ B) $[0; 15]$ C) $[0; 15)$ D) $[-1; 15)$

166 (02-5-29) Arifmetik progressiyaning birinchi va to'rtinchi hadi yig'indisi 26 ga teng, ikkinchi hadi esa beshinchi hadidan 6 ga ko'p. Shu progressiyaning uchinchi va beshinchi hadi yig'indisini toping.

- A) 20 B) 21 C) 22 D) 23

167 (99-6-54) Arifmetik progressiyaning dastlabki n ta hadining yig'indisi 91 ga teng. Agar $a_3 = 9$ va $a_7 - a_2 = 20$ ekanligi ma'lum bo'lsa, n ni toping.

- A) 7 B) 5 C) 3 D) 9

168 (98-4-21) Nolga teng bo'lmagan x, y, z sonlar ko'rsatilgan tartibda ishorasi o'zgaruvchi geometrik progressiyaning $x + y; y + z; z + x$ sonlar esa arifmetik progressiyaning tashkil etadi. Geometrik progressiyaning maxrajini toping.

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

169 (98-1-26) Geometrik progressiyaning maxraji -2 ga, dastlabki beshta hadining yig'indisi 5,5 ga teng. Progressiyaning beshinchi hadini toping.

- A) 4 B) -8 C) 8 D) -16

170 (00-5-12) Sexda 120 ta samovar va 20 ta patnis yasalgan. Sarf qilingan hamma materialning 0,96 qismi samovarga ketgan. Agar har bir samovarning og'irligi 3,2 kg dan bo'lsa, har bir patnis necha kg bo'lgan?

- A) 0,8 B) 0,04 C) 7,68 D) 0,768

171 (97-10-4) Muayyan masofani bosib o'tish uchun ketadigan vaqtni 25% ga kamaytirish uchun tezlikni necha foiz orttirish kerak?

- A) 25 B) 20 C) $33\frac{1}{3}$ D) 30

172 (99-4-23) Funksiyaning aniqlanish sohasini toping.

$$y = \sqrt{x^2 - 9} + \frac{2}{\sqrt{-x}}$$

- A) (0; 3) B) [-3; 0) C) $(-\infty; 0)$ D) $(-\infty; -3]$

173 (03-6-13) Agar

$$f\left(\frac{3x-2}{2}\right) = x^2 - x - 1$$

bo'lsa, $f(0)$ ni toping.

- A) $-\frac{5}{9}$ B) $-\frac{13}{9}$ C) $-\frac{7}{9}$ D) $-\frac{11}{9}$

174 (98-10-91) k ning qanday qiymatlarida $kx + 3y + 1 = 0$ va $2x + (k+1)y + 2 = 0$ to'g'ri chiziqlar parallel bo'ladi?

- A) 2 B) -2 C) -3 D) -3 va 2

175 (03-11-30) Koordinatalar boshidan $5x + 12y = 60$ to'g'ri chiziqqacha bo'lgan masofani aniqlang.

- A) $4\frac{8}{13}$ B) 5 C) $5\frac{3}{13}$ D) $4\frac{7}{13}$

176 (00-3-5) 72 va 96 sonlari EKUKning EKUBiga nisbatini toping?

- A) 10 B) 0,1 C) 9 D) 12

177 (03-7-43)* Hisoblang.

$$\frac{2}{5 \cdot 7} + \frac{2}{7 \cdot 9} + \frac{2}{9 \cdot 11} + \dots + \frac{2}{73 \cdot 75}$$

- A) $\frac{16}{75}$ B) $\frac{28}{75}$ C) $\frac{1}{5}$ D) $\frac{14}{75}$

178 (00-2-1) Ifodaning qiymatini toping.

$$12,7 \cdot 64 + 173 \cdot 3,6 + 12,7 \cdot 36 + 17,3 \cdot 64$$

- A) 3000 B) 1800 C) 2000 D) 3600

179 (97-2-14) Agar $x > y > z$ bo'lsa,

$$|x - y| - |z - y| - |z - x|$$

ni soddalashtiring.

- A) $2x$ B) $2y - 2x$ C) $2z - 2y$ D) $2y$

180 (01-5-6) Soddalashtiring.

$$\frac{x}{x^2 + y^2} - \frac{y \cdot (x - y)^2}{x^4 - y^4}$$

- A) $\frac{1}{x + y}$ B) $\frac{1}{x - y}$ C) $x + y$ D) $x - y$

181 (97-12-27) Hisoblang.

$$\sqrt{9 - 4\sqrt{2}} - \sqrt{9 + 4\sqrt{2}}$$

- A) 2 B) 3 C) -3 D) -2

182 (01-12-35) 800 kg mevaning tarkibida 80% suv bor. Bir necha kundan keyin mevaning og'irligi 500 kg ga tushdi. Endi uning tarkibida necha foiz suv bor?

- A) 62 B) 68 C) 66 D) 60

183 (00-3-14) a va b ning qanday qiymatlarida

$$\frac{1}{4x^2 - 1} = \frac{a}{2x - 1} - \frac{b}{2x + 1}$$

munosabat ayniyat bo'ladi?

- A) $a = -\frac{1}{2}$, $b = \frac{1}{2}$ B) $a = 1$, $b = -1$
C) $a = -1$, $b = 1$ D) $a = \frac{1}{2}$, $b = \frac{1}{2}$

184 (03-3-12) p ning qanday qiymatida

$$x^2 - px + 5 = 0$$

tenglamaning ildizlaridan biri boshqasidan 4 ga katta?

- A) 6 B) 4 C) -4 D) ± 6

185 (03-1-65) Agar

$$\begin{cases} x^2y + xy^2 = 120 \\ x^2y - xy^2 = 30 \end{cases}$$

bo'lsa, $x^2 - y^2$ ning qiymatini hisoblang.

- A) 16 B) 20 C) 25 D) 34

186 (99-2-18) Tenglama yechimga ega bo'lmaydigan k ning eng katta butun qiymatini toping.

$$kz^2 + 2(k - 12)z + 2 = 0$$

- A) 16 B) 18 C) 20 D) 17

187 (99-9-12) Tenglama ildizlari ko'paytmasini toping.

$$\sqrt{x^2 + 77} - 2\sqrt{x^2 + 77} - 3 = 0$$

- A) -3 B) 3 C) 4 D) -4

188 (97-2-36) (a_n) arifmetik progressiyaning dastlabki n ta hadi yig'indisi 120 ga teng. Agar $a_3 + a_{n-2} = 30$ bo'lsa, yig'indida nechta had qatnashgan?

- A) 6 B) 10 C) 8 D) 12

189 (00-6-25) O'suvchi geometrik progressiyaning dastlabki to'rtta hadi yig'indisi 15 ga, undan keyingi to'rttasiniki esa 240 ga teng. Shu progressiyaning dastlabki oltita hadi yig'indisini toping.

- A) 31 B) 48 C) 63 D) 127

190 (99-9-4) A va B shaharlar orasidagi masofa 188 km. Bir vaqtning o'zida bir-biriga qarab A shahardan velosipedchi, B shahardan motosiklchi yo'lga tushdi va ular A shahardan 48 km masofada uchrashdi. Agar velosipedchining tezligi 12 km/soat bo'lsa, motosiklchining tezligini toping.

- A) 45 B) 42 C) 30 D) 35

191 (96-13-10) Funksiyaning aniqlanish sohasini toping.

$$y = \sqrt{\frac{(x-2)(4-x)}{x(x+1)}}$$

- A) $(-1; 0) \cup [2; 4]$ B) $[-1; 0] \cup (2; 4)$
C) $(-1; 0] \cup [2; 4)$ D) $(-\infty; -1) \cup (0; 2] \cup [4; \infty)$

192 k ning qanday qiymatlarida $kx + 4y + 7 = 0$ va $x - 2y - 1 = 0$ to'g'ri chiziqlar parallel bo'ladi?

- A) -3 B) $-\frac{1}{4}$ C) -2 D) $-\frac{3}{4}$

193 (02-5-12) m ning qanday qiymatlarida $y = (m + 4)x^2 - 2(m + 2)x + 1$ kvadrat uchhadning grafigi absissalar o'qidan pastda joylashadi?

- A) $(-\frac{1}{4}; 1)$ B) $(-2; 1)$ C) \emptyset D) $(-\infty; \infty)$

194 (99-3-29) Funksiyaga teskari funksiyani toping.

$$y = \frac{x-1}{2-3x}$$

- A) $y = \frac{2-3x}{x-1}$ B) $y = -\frac{2-3x}{x-1}$
C) $y = \frac{2-3x}{1-x}$ D) $y = \frac{2x+1}{3x+1}$

195 (00-3-60) Argumentning qanday qiymatida

$$y = \frac{5x}{2|x+1| - 5}$$

funksiya 2 ga teng?

- A) $-\frac{4}{3}$ B) $-\frac{5}{3}$ C) -2 D) $-\frac{14}{9}$

196 (99-3-27) Funktsiyalardan qaysilari juft funksiya?

$$y_1 = \frac{a^x + a^{-x}}{2}; \quad y_2 = \frac{a^x + 1}{a^x - 1};$$

$$y_3 = \frac{x}{a^x - 1}; \quad y_4 = x \frac{a^x - 1}{a^x + 1};$$

A) y_1 B) y_2 C) $y_2; y_3$ D) $y_1; y_4$

197 (03-3-31) Tenglama ildizlari yig'indisini toping.

$$\left(\frac{\sqrt{5}}{3}\right)^{2x^2-5x} = 1,8$$

A) 5 B) -5 C) 2,5 D) -2,5

198 (97-6-26) Tenglamani yeching.

$$2^{3x+7} + 5^{3x+4} + 2^{3x+5} - 5^{3x+5} = 0$$

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

199 (00-9-30) Tenglama nechta ildizga ega?

$$3^{-x} = 4 + x - x^2$$

A) \emptyset B) 1 C) 2 D) 3 E) 4

200 (03-6-58) Tengsizlikni yeching.

$$3^{3x-2} + 3^{3x+1} - 3^{3x} < 57$$

A) $x > 1$ B) $x < 1\frac{1}{2}$ C) $x < 1$ D) $x > \frac{2}{3}$