YANGI NASHR

IDC

MATEMATIKA

I QISM

2024

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4. Bo‘linuvchanlik. Sonning natural bo‘luvchilar soni va yig‘indisi

1-10. Berilgan sonlarning natural bo‘luvchilari sonini aniqlang.

1 36

2 100

3 96

4 144

5 160

6 248

7 196

8 120

9 240

10 360

11-20. Berilgan sonlarning natural bo‘luvchilari yig‘indisini toping.

11 40

12 48

13 60

14 56

15 240

16 144

17 105

18 180

19 550

20 231

21-30. Berilgan sonlarning umumiy natural bo‘luvchilari sonini toping.

21 120 va 144

22 180 va 250

23 270 va 240

24 135 va 195

25 432 va 576

26 196 va 441

27 1001 va 1430

28 140; 180 va 220

29 80; 112 va 144

30 162; 180 va 252

31-40. Hisoblash natijasida hosil bo‘lgan sonning natural bo‘luvchilari sonini toping.

31 $12 \cdot 30$

32 $20 \cdot 36 \cdot 28$

33 $48 \cdot 70 \cdot 144$

34 $100 \cdot 198 \cdot 324$

35 $4 \cdot 5 \cdot 6 \cdot \ldots \cdot 10$

36 $5 \cdot 10 \cdot 15 \cdot \ldots \cdot 35 \cdot 40$

37 $\dfrac{8!}{6!}$

38 $\dfrac{25!}{23!}$

39 $\dfrac{50!}{48!}$

40 $\dfrac{35!}{33!}$

41 $2^3 \cdot 3^m$ ning natural bo‘luvchilar soni 20 ta bo‘lsa, m ni toping;

42 $3^4 \cdot 5^m$ ning natural bo‘luvchilar soni 15 ta bo‘lsa, m ni toping.

43 $3^3 \cdot 2^2 \cdot 5^m$ ning natural bo‘luvchilar soni 36 bo‘lsa, m nni toping.

44 $7^2 \cdot 11^3 \cdot 13^m$ ning natural bo‘luvchilar soni 48 ta bo‘lsa, m ni toping.

45 $19^2 \cdot 13^4 \cdot 11^m$ ning natural bo‘luvchilar soni 45 ta bo‘lsa, m ni toping.

46 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 63 \cdot 64$ ko‘paytma 2 ning qanday eng katta darajasiga bo‘linadi?

47 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 242 \cdot 243$ ko‘paytma 3 ning qanday eng katta darajasiga bo‘linadi?

48 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 124 \cdot 125$ ko‘paytma 5 ning qanday eng katta darajasiga bo‘linadi?

49 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 146 \cdot 147$ ko‘paytma 7 ning qanday eng katta darajasiga bo‘linadi?

50 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 120 \cdot 121$ ko‘paytma 11 ning qanday eng katta darajasiga bo‘linadi?

51 $65 \cdot 66 \cdot 67 \cdot \ldots \cdot 127 \cdot 128$ ko‘paytma 2 ning qanday eng katta darajasiga bo‘linadi?

52 $31 \cdot 32 \cdot 33 \cdot \ldots \cdot 98 \cdot 99$ ko‘paytma 3 ning qanday eng katta darajasiga bo‘linadi?

53 $41 \cdot 42 \cdot 43 \cdot \ldots \cdot 144 \cdot 145$ ko‘paytma 5 ning qanday eng katta darajasiga bo‘linadi?

54 $22 \cdot 23 \cdot 24 \cdot \ldots \cdot 209 \cdot 210$ ko‘paytma 7 ning qanday eng katta darajasiga bo‘linadi?

55 $33 \cdot 34 \cdot 35 \cdot \ldots \cdot 131 \cdot 132$ ko‘paytma 11 ning qanday eng katta darajasiga bo‘linadi?

56-65. Berilgan ko‘paytmalarning nechta nol raqami bilan tugashini aniqlang.

56 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 99 \cdot 100$

57 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 199 \cdot 200$

58 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 124 \cdot 125$

59 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 624 \cdot 625$

60 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 249 \cdot 250$

61 $21 \cdot 22 \cdot 23 \cdot \ldots \cdot 49 \cdot 50$

62 $41 \cdot 42 \cdot 43 \cdot \ldots \cdot 119 \cdot 120$

63 $101 \cdot 102 \cdot 103 \cdot \ldots \cdot 174 \cdot 175$

64 $81 \cdot 82 \cdot 83 \cdot \ldots \cdot 199 \cdot 200$

65 $126 \cdot 127 \cdot 128 \cdot \ldots \cdot 624 \cdot 625$

66 1 dan 200 gacha natural sonlar orasidan nechtasi 2 ga bo‘linadi?

67 1 dan 100 gacha natural sonlar orasidan nechtasi 3 ga bo‘linadi?

68 1 dan 400 gacha natural sonlar orasidan nechtasi 5 ga bo‘linadi?

69 1 dan 300 gacha natural sonlar orasidan nechtasi 7 ga bo‘linadi?

70 1 dan 60 gacha natural sonlar orasidan nechtasi 3 ga bo‘linmaydi?

71 1 dan 40 gacha natural sonlar orasidan nechtasi 5 ga bo‘linmaydi?

72 101 dan 300 gacha natural sonlar orasidan nechtasi 10 ga bo‘linadi?

73 41 dan 100 gacha natural sonlar orasidan nechtasi 8 ga bo‘linadi?

74 101 dan 200 gacha natural sonlar orasidan nechtasi 5 ga bo‘linmaydi?

75 51 dan 170 gacha natural sonlar orasidan nechtasi 10 ga bo‘linmaydi?

76 1 dan 200 gacha natural sonlar orasidan nechtasi 4 va 6 ga bo‘linadi?

77 1 dan 200 gacha natural sonlar orasidan nechtasi 6, 9 va 10 ga bo‘linadi?

78 1 dan 400 gacha natural sonlar orasidan nechtasi 8 va 10 ga bo‘linadi?

79 1 dan 300 gacha natural sonlar orasidan nechtasi 4, 6 va 10 ga bo‘linadi?

80 1 dan 200 gacha natural sonlar orasidan nechtasi 12 va 16 ga bo‘linadi?

81 Ko‘paytmasi 48 ga teng bo‘lgan nechta natural sonlar juftligi mavjud?

82 Ko‘paytmasi 240 ga teng bo‘lgan nechta natural sonlar juftligi mavjud?

83 Ko‘paytmasi 576 ga teng bo‘lgan nechta natural sonlar juftligi mavjud?

84 100; 121; 120; 144 va 154 sonlaridan nechtasining natural bo‘luvchilari soni toq?

85 96; 125; 196; 256 va 324 sonlaridan nechtasining natural bo‘luvchilari soni toq?

86 Dastlabki 100 ta tub son ko’paytmasi nechta 0 bilan tugaydi?

87 2, 3, 4 va 5 ga qoldiqsiz bo’linadigan eng kichik uch xonali sonni toping.

88 3, 4, 5, 6 va 7 sonlariqa qoldisiz bo’linadigan 3 xonali sonlar nechta?

89 1 dan 300 gacha natural sonlar orasidan nechtasi 3 ga va 5 ga bir vaqtda bo‘linmaydi?

90 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 99 \cdot 100$ ko‘paytma 10 ning qanday eng katta darajasiga bo‘linadi?

Iqtidorli o’quvchilar uchun

91 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 99 \cdot 100$ ko‘paytma 4 ning qanday eng katta darajasiga bo‘linadi?

92 $1 \cdot 2 \cdot 3 \cdot \ldots \cdot 124 \cdot 125$ ko‘paytma 80 ning qanday eng katta darajasiga bo‘linadi?

93 $1 \cdot 2 \cdot 3 \ldots \cdot 124 \cdot 125$ ko‘paytma 45 ning qanday eng katta darajasiga bo‘linadi?

94 1 dan 200 gacha natural sonlar orasidan nechtasi 2 ga ham, 5 ga ham bo’linmaydi?

95 $300 \cdot 40!$ soni nechta 0 bilan tugaydi?

96 $123!+124!$ soni nechta 0 bilan tugaydi?

97 n toq natural sonning bo‘luvchilar soni 20 ta bo‘lsa, $4n$ ning natural bo‘luvchilar sonini toping.

98 a va b o‘zaro tub sonlar. a ning natural bo‘luvchilar soni 18 ta, b ning natural bo‘luvchilar soni 20 ta. ab sonining natural bo‘luvchilar soni nechta?

99 30 ga bo‘linadigan va aniq 30 ta natural bo‘luvchiga ega bo‘lgan sonlarni toping.

100 42 ga bo‘linadigan va aniq 42 ta natural bo‘luvchiga ega bo‘lgan sonlarni toping.

JAVOBLAR

1. 9
2. 9
3. 12
4. 15
5. 12
6. 8
7. 9
8. 16
9. 20
10. 24
11. 90
12. 124
13. 168
14. 120
15. 744
16. 403
17. 192
18. 546
19. 1116
20. 384
21. 8
22. 4
23. 8
24. 4
25. 15
26. 3
27. 4
28. 6
29. 5
30. 6
31. 24
32. 84
33. 160
34. 252
35. 192
36. 480
37. 8
38. 24
39. 18
40. 16
41. 4
42. 2
43. 2
44. 3
45. 2
46. 63
47. 121
48. 31
49. 24
50. 12
51. 64
52. 34
53. 26
54. 31
55. 11
56. 24
57. 49
58. 31
59. 156
60. 62
61. 8
62. 19
63. 19
64. 30
65. 125
66. 100
67. 33
68. 80
69. 42
70. 40
71. 32
72. 20
73. 7
74. 80
75. 108
76. 16
77. 2
78. 10
79. 5
80. 4
81. 5 ta
82. 10 ta
83. 11 ta
84. 3ta
85. 3ta
86. 1 ta
87. 120
88. 2
89. 280
90. 24
91. 48
92. 29
93. 29
94. 80
95. 11
96. 31
97. 60
98. 360
99. 11250,4050,7500, 1620, 1200, 720
100. 2117682, 71442, 1411788,20412, 9408,4032

Mavzuga doir murakkab masalalar yechilish usullari bilan tanishish uchun QR code ni skanerlang yoki suratga olib, *@idcuzbot* ga yuboring.

Qaydlar uchun

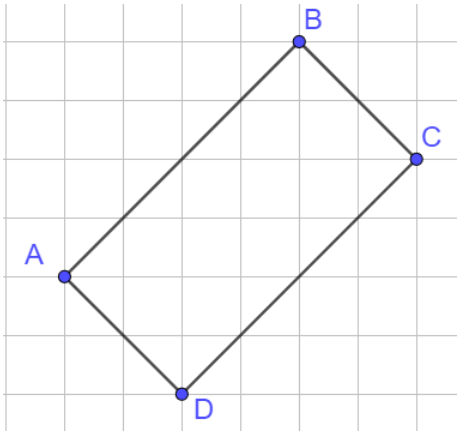
6-10-mavzular bo'yicha takrorlash testi

1 Hisoblang: $-2 \cdot (-9+1) - 4 \cdot (6-10)$
A)32 B)0 C)16 D)-16

2 Kubning qirralari uzunliklari yig'indisi 216 cm. Kubning to'la sirti yuzini (cm^3) toping.
A)1944 B)144 C)216 D)972

3 $\frac{5}{18}$ kasrning surati 20% ga oshirildi, maxraji esa 20 ga oshirildi. Hosil bo'lgan sonni toping.
A)$\frac{1}{60}$ B)$\frac{5}{18}$ C)$\frac{25}{38}$ D)$\frac{3}{19}$

4 Katakchalar birlik kvadrat bo'lsa, ABCD to'rtburchak yuzini toping.



A)22 B)12 C)18 D)16

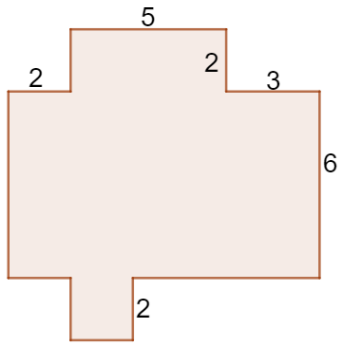
5 15 ta sigirni bir hafta davomida boqish uchun 294 kg ozuqa kerak bo'ladi. 10 ta sigirni 30 kun davomida boqish uchun necha kilogramm ozuqa kerak bo'ladi?
A)900 B)875 C)910 D)840

6 Proporsiyaning noma'lum hadini toping. $12 : 16 = 18 : x$
A)22 B)32 C)20 D)24

7 $\frac{120}{168}$ soni quyidagilardan qaysi biriga teng emas?
A)$\frac{30}{42}$ B)$\frac{20}{24}$ C)$\frac{5}{7}$ D)$\frac{40}{56}$

8 To'g'ri to'rtburchakning eni 12 cm, bo'yi esa enidan 6 cm uzun. To'rtburchak yuzini (cm^2) toping.
A)60 B)108 C)144 D)216

9 Shaklning perimetrini toping.



A)48 B)40 C)44 D)38

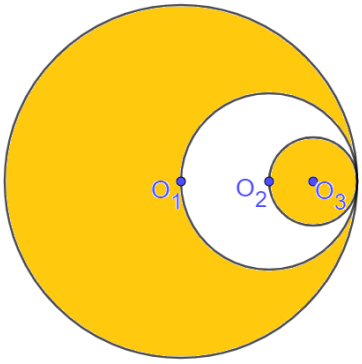
10 Hisoblang: $\left(3\frac{1}{2}+4\frac{1}{3}+5\frac{1}{4}\right):\left(2\frac{1}{4}+2\frac{1}{8}+2\frac{1}{6}\right)$

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

11 120 gektar yerning 30 gektariga bug'doy ekilgan. Yerning necha foiziga bug'doy ekilgan?

A)12 B)25 C)30 D)50

12 $O_1;O_2;O_3$ mos doiralar markazlari. $O_1O_2=4$ bo'lsa, bo'yalgan soha yuzini toping.



A)48π B)42π C)64π D)52π

13 Sonlarni o'sish tartibida joylashtiring: $a=\frac{3}{5}$; $b=0,7;c=0,(6)$

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

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

14 Hisoblang: $\dfrac{0,7\cdot\frac{5}{3}+0,7\cdot\frac{9}{5}}{1,3\cdot\frac{14}{9}}$

A)$\frac{6}{5}$ B)$\frac{4}{5}$ C)$\frac{3}{4}$ D)1

15 Hisoblang: $[-2,7]+\{-1,6\}$

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

16 Ishning $\frac{2}{5}$ qismi birinchi kun, 25%i ikkinchi kun bajarildi. Ishning qanday qismi bajarilmay qoldi?
A)$\frac{1}{5}$ B)$\frac{1}{4}$ C)$\frac{3}{10}$ D)$\frac{7}{20}$

17 Hisoblang: $\dfrac{0,8\cdot 1,(3)+\frac{4}{5}\cdot 2,(6)}{2,52:0,9-3,24:2,7}$
A)$\frac{5}{3}$ B)$\frac{4}{3}$ C)2 D)$\frac{11}{4}$

18 $0,1\cdot 0,2\cdot 0,3\cdot\ldots\cdot 9,9$ sonida verguldan keyin nechta raqam borligini aniqlang.
A)76 B)99 C)84 D)72

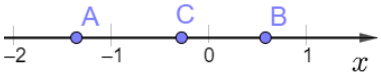
19 120 ning 30%i 50 ning $\frac{2}{5}$ qismidan qanchaga katta?
A)8 B)12 C)16 D)24

20 Akvariumning bo'yi 90 cm, eni 40 cm va balandligi 60 cmcm ga teng. Akvarium to'lishiga 10 sm qolguncha suv solindi. Unga necha litr suv solingan?
A)216 litr B)18 litr C)160 litr D)180 litr

21 Ikki shahar orasidagi masofa 360 km. Bu 1:2500000 masshtabli xaritada necha sm bo'ladi?
A)1,44 B)144 C)44,1 D)14,4

22 $(17,9\cdot 28,6-17,9\cdot 26,6+32,1\cdot 48,7-32,1\cdot 46,7):20$ ni hisoblang.
A)0,5 B)100 C)5 D)10

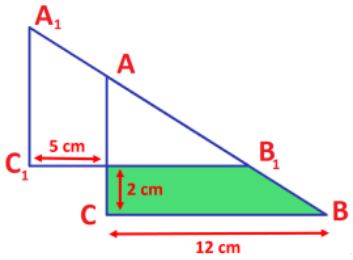
23 Chizmaga ko'ra noto'g'ri tengsizlikni aniqlang.



A)$A+C<0$ B)$A\cdot C>0$ C)$A<C<B$ D)$C\cdot B>0$

24 Korxonada mahsulot ishlab chiqarish birinchi yili 15% ga, ikkinchi yili 20% oshdi. Mahsulot ishlab chiqarish ikki yil davomida necha foizga oshgan?
A)35 B)37,5 C)36 D)38

25 Quyidagi rasmda ABC to'g'ri burchakli uchburchak va bu uchburchakni ko'chirishdan hosil qilingan $A_1B_1C_1$ uchburchak berilgan. Rasmda berilgan ma'lumotlar asosida bo'yalgan shaklning yuzini toping(cm^2).

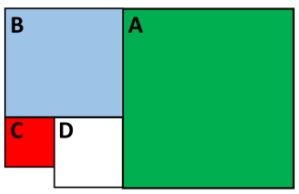


A) 24 B) 17 C) 21 D) 19

26 Hisoblang: $(4 : (5 : 6) - 4 : 5 : 6) : (4 : 5) : 6$

A)$\frac{35}{27}$ B)$\frac{28}{45}$ C)$\frac{35}{36}$ D)0

27 Rasmda to'rtta turli tomonli A, B, C va D kvadratlar tasvirlangan. A va C kvadratlarning perimetrlari mos ravishda 52 cm va 12 cm bo'lsa, B va D kvadratlarning yuzlari yig'indisini toping(cm^2).

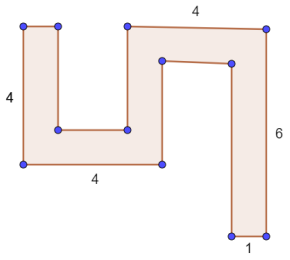


A)85 B)89 C)41 D)80

28 Hisoblang: $\frac{2^2}{1\cdot 3}+\frac{4^2}{3\cdot 5}+\frac{6^2}{5\cdot 7}+...+\frac{20^2}{19\cdot 21}$

A)$9\frac{20}{21}$ B)$10\frac{10}{21}$ C)$10\frac{20}{21}$ D)$9\frac{10}{21}$

29 Eni 1 ga teng bo'lgan quyidagi yo'lakchani tomoni 0,5 bo'lgan kvadrat shaklidagi kafel bilan qoplash uchun nechta kafel kerak bo'ladi?



A)18 B)36 C)72 D)144

30 Sotuvchi 1 kg mahsulotni 10000 so'mga sotsa, 20% foyda qiladi. Agar u 10000 so'mga 800 gramm mahsulot sotsa, necha foiz foyda qiladi?

A)50% B)40% C)30% D)60%

16. Qisqa ko‘paytirish formulalari (2-qism)

1-20. Soddalashtiring.

1 $(m+n)^3$

2 $(a+4)^3$

3 $(a-6)^3$

4 $(x+2y)^3$

5 $(3a+2)^3$

6 $(2x-3)^3$

7 $(a^2-b^2)^3$

8 $\left(a^2+2b\right)^3$

9 $\left(3a-2b^2\right)^3$

10 $\left(a^3+3\right)^3$

11 $\left(xy-x^2\right)^3$

12 $\left(2xy^2+yx^2\right)^3$

13 $(ab-3bc)^3$

14 $(2+3ab)^3$

15 $(0,1+b)^3$

16 $\left(\frac{a}{2}-4\right)^3$

17 $\left(a^2+\frac{1}{a}\right)^3$

18 $\left(x+\frac{2}{x}\right)^3$

19 $(a^n + b^m)^3$

20 $(x^n + y^{2m})^3$

21-25. * o‘rniga kerakli ifodalarni yozing.

21 $(a - *)^3 = * - 12a^2 + 48a - 64$

22 $(a + *)^3 = * + 3a^2b + 3a * + b^3$

23 $(a^2 + *)^3 = * + * + 3a^2b^4 + b^6$

24 $(* + m)^3 = n^6 + 3n^4m + * + m^3$

25 $(* + *)^3 = k^3 + 3k^2m^2 + 3km^4 + *$

26-30. Yig‘indi yoki ayirmaning kubiga keltiring.

26 $a^3 + 12a^2 + 48a + 64$

27 $a^3 - 21a^2 + 147a - 343$

28 $a^3 + 9a^2 + 27a + 27$

29 $a^3 - 6a^2b + 12ab^2 - 8b^3$

30 $27a^3 + 54a^2b + 36ab^2 + 8b^3$

31-50. Ko‘phad ko‘rinishida yozing.

31 $(u + v)\left(u^2 - uv + v^2\right)$

32 $(a + 5)\left(a^2 - 5a + 25\right)$

33 $(2a+3b)\left(4a^2-6ab+9b^2\right)$

34 $\left(\frac{1}{4}+a\right)\left(\frac{1}{16}-\frac{1}{4}a+a^2\right)$

35 $\left(\frac{a}{2}+2b\right)\left(\frac{a^2}{4}-ab+4b^2\right)$

36 $\left(a^3+a\right)\left(a^6-a^4+a^2\right)$

37 $\left(0,2+b^2\right)\left(0,04-0,2b^2+b^4\right)$

38 $(0,5a+0,2b)\left(0,25a^2-0,1ab+0,04b^2\right)$

39 $\left(a^n+b^m\right)\left(a^{2n}-a^nb^m+b^{2m}\right)$

40 $\left(a^n+a^3\right)\left(a^{2n}-a^{n+3}+a^6\right)$

41 $(p-q)\left(p^2+pq+q^2\right)$

42 $(a-3)\left(a^2+3a+9\right)$

43 $(b-4)\left(b^2+4b+16\right)$

44 $(3+a^2)(9+a^4-3a^2)$

45 $(0,1-a)\left(a^2+\frac{1}{100}+\frac{a}{10}\right)$

46 $(a-1)^3-(a+1)^3+6a^2$

47 $(x+2)^3-(x+2)\left(x^2-2x+4\right)-6\,(x+1)^2$

48 $(x-2)^3+(x+2)^3-2x^3$

49 $(a+2)^2+2a\,(a+1)-(a+1)^3-3a$

50 $(a-1)^3+3\,(a+1)^2-(a+2)\left(a^2-2a+4\right)$

51 $(a+2)^3+(a-3)^3-2a\,(a-1)^2-36a$

52 $a\,(a-3)^2-(a-2)^3+3(a+5)$

53 $(x-3)^3-x(x-1)^2$

54 $(y^2-1)(y^4+y^2+1)-(y^3-1)^2$

55 $(x-3)^3-(x-3)(x^2+3x+9)+9(x^2-6)$

56 Agar $x+2y=9$ va $x-2y=2$ bo‘lsa, x^2-4y^2 ni toping.

57 Agar $x-3y=7$ va $x+3y=3$ bo‘lsa, x^2-9y^2 ni toping.

58 Agar $2x+3y=8$ va $2x-3y=12$ bo‘lsa, $4x^2-9y^2$ ni toping.

59 Agar $x-2y=4$ va $x^2-4y^2=20$ bo‘lsa, $x+2y$ ni toping.

60 Agar $3x+y=8$ va $9x^2-y^2=72$ bo‘lsa, $3x-y$ ni toping.

61 Agar $(x^2-y^n)(x^2+y^n)=x^m-y^8$ bo‘lsa, $m+n$ ni toping.

62 Agar $(x^3-y^n)(x^3+y^n)=x^m-y^8$ bo‘lsa, mn ni toping.

63 Agar $(2x^2+y^m)(2x^2-y^m)=4x^n-y^{10}$ bo‘lsa, $\dfrac{m+n}{m-n}$ ni toping.

64 Agar $a^2+b^2=9$ va $ab=3$ bo‘lsa, $(a+b)^2$ ning qiymatini toping.

65 Agar $a^2+4b^2=20$ va $ab=2$ bo‘lsa, $(a+2b)^2$ ning qiymatini toping.

66 Agar $4a^2+9b^2=15$ va $ab=1$ bo‘lsa, $(2a+3b)^2$ ning qiymatini toping.

67 $x-3y=12$ va $xy=6$ bo‘lsa, x^2+9y^2 ning qiymatini toping.

68 $2x+3y=10$ va $xy=5$ bo‘lsa, $4x^2+9y^2$ ning qiymatini toping.

69 Agar $x^2+\dfrac{9}{x^2}=10$ bo‘lsa, $\left(x+\dfrac{3}{x}\right)^2$ ning qiymatini toping.

70 Agar $a^2+\dfrac{4}{a^2}=6$ bo‘lsa, $\left(a+\dfrac{2}{a}\right)^2$ ning qiymatini toping.

71 Agar $4a^2 + \frac{9}{a^2} = 9$ bo‘lsa, $\left(2a + \frac{3}{a}\right)^2$ ning qiymatini toing.

72 Agar $x + y = 10$ va $xy = 17$ bo‘lsa, $x^2 + y^2$ ning qiymatini toping.

73 Agar $x + y = 9$ va $xy = 10$ bo‘lsa, $x^2 + y^2$ ning qiymatini toping.

74 Agar $x - y = 7$ va $xy = 9$ bo‘lsa, $x^2 + y^2$ ning qiymatini toping.

75 Agar $x - y = 6$ va $xy = 12$ bo‘lsa, $x^2 + y^2$ ning qiymatini toping.

76 Agar $x + \frac{1}{x} = 3$ bo‘lsa, $x^2 + \frac{1}{x^2}$ ning qiymatini toping.

77 Agar $x + \frac{3}{x} = 7$ bo‘lsa, $x^2 + \frac{9}{x^2}$ ning qiymatini toping.

78 Agar $x - \frac{2}{x} = 5$ bo‘lsa, $x^2 + \frac{4}{x^2}$ ning qiymatini toping.

79 Agar $x^2 + \frac{4}{x^2} = 8$ bo‘lsa, $x^4 + \frac{16}{x^4}$ ning qiymatini toping.

80 Agar $x - \frac{5}{x} = 4$ bo‘lsa, $\frac{x^4 + 25}{x^2}$ ning qiymatini toping.

81 Agar $x - \frac{7}{x} = 5$ bo‘lsa, $\frac{x^4 + 49}{x^2}$ ning qiymatini toping.

82 Agar $x + \frac{3}{x} = 6$ bo‘lsa, $\frac{x^4 + 9}{x^2}$ ning qiymatini toping.

83 Agar $x+\frac{1}{x}=2$ bo‘lsa, $\frac{x^4+1}{2x^2}$ ning qiymatini toping.

84 Agar $x+\frac{1}{x}=3$ bo‘lsa, $x^3+\frac{1}{x^3}$ ning qiymatini toping.

85 Agar $x-\frac{2}{x}=4$ bo‘lsa, $x^3-\frac{8}{x^3}$ ning qiymatini toping.

86 Agar $x+\frac{4}{x}=-4$ bo‘lsa, $\frac{x^6+64}{x^3}$ ning qiymatini toping.

87 Agar $x+\frac{2}{x}=5$ bo‘lsa, $x^4+\frac{16}{x^4}$ ning qiymatini toping.

88 Agar $2x-\frac{1}{x}=4$ bo‘lsa, $16x^4+\frac{1}{x^4}$ ning qiymatini toping.

89 $x^2+9y^2=69$ va $xy=2$ bo‘lsa, $x+3y$ ning qiymatini toping.

90 $25x^2+4y^2=81$ va $xy=2$ bo‘lsa, $5x+2y$ ning qiymatini toping.

91 $a^2+b^2+c^2=6$ va $ab+bc+ca=5$ bo‘lsa, $a+b+c$ ning qiymatini toping.

92 $a+b-c=3$ va $ab=bc+ca$ bo‘lsa, $a^2+b^2+c^2$ ning qiymatini toping.

93 $x+y=4$ va $xy=3$ bo‘lsa, x^4+y^4 ning qiymatini toping.

94 $x-y=5$ va $xy=2$ bo‘lsa, x^4+y^4 ning qiymatini toping.

95 $x^3+y^3=28$ va $x^2y+y^2x=12$ bo‘lsa, $x+y$ ning qiymatini toping.

96 $x^3-27y^3=35$ va $x^2y-3xy^2=-10$ bo‘lsa, $x-3y$ ning qiymatini toping.

97 Soddalashtiring:
$(x-2)(x+2)(x^2+2^2)\dots(x^{128}+2^{128})$

98 Soddalashtiring:
$(1-x)(1+x)(1+x^2)\dots(1+x^{256})$

99 Hisoblang:
$2\cdot(3+1)\cdot(3^2+1)\dots(3^{256}+1)-3^{512}$

100 Hisoblang:
$0,9\cdot1,1\cdot(1+0,1^2)\cdot(1+0,1^4)\dots(1+0,1^{128})+\dfrac{1}{10^{256}}$

101 Agar $A=(3^2+1)(3^4+1)\dots(3^{512}+1)$ bo‘lsa, $A-\dfrac{3^{1024}}{8}$ ning qiymatini toping.

102 Agar x,y natural son bo‘lib, $x^2-y^2=9$ bo‘lsa, $x-y$ ning qiymatini toping.

103 Agar x,y natural son bo‘lib, $x^2-y^2=49$ bo‘lsa, $x+y$ ning qiymatini toping.

104 Agar $x-\frac{1}{2x}=3$ bo‘lsa, $\frac{4x^4+1}{4x^2}$ ning qiymatini toping.

105 Agar $3x+\frac{1}{2x}=7$ bo‘lsa, $\frac{36x^4+1}{4x^2}$ ning qiymatini toping.

Iqtidorli o‘quvchilar uchun

106 Agar $x+y=a$ va $xy=b$ bo‘lsa, x^2+y^2 ni a va b orqali ifodalang.

107 Agar $x+y=a$ va $xy=b$ bo‘lsa, x^3+y^3 ni a va b orqali ifodalang.

108 Agar $x+y=a$ va $xy=b$ bo‘lsa, x^4+y^4 ni a va b orqali ifodalang.

109 Agar $x+y=a$ va $xy=b$ bo‘lsa, x^6+y^6 ni a va b orqali ifodalang.

110 Agar $a+\frac{1}{a}=3$ bo‘lsa, $a^5+\frac{1}{a^5}$ ning qiymatini toping.

111 Agar $a-\frac{2}{a}=3$ bo‘lsa, $a^5-\frac{32}{a^5}$ ning qiymatini toping.

112 Agar a natural son bo‘lib, $a^2-1=2^{17}(8^5+1)$ bo‘lsa, $\dfrac{a-1}{32^3}$ ni hisoblang.

113 Agar a natural son bo‘lib, $a^2-1=2^{29}(8^9+1)$ bo‘lsa, $\dfrac{a-1}{8^9}$ ni hisoblang.

114 Agar $x^5+x^4+x^3+x^2+x+1=10$ bo‘lsa, x^6-10x ning qiymatini toping.

115 Agar $x^4+x^3+x^2+x+1=8$ bo‘lsa, x^5-8x ning qiymatini toping.

JAVOBLAR

1. $m^3+3m^2n+3mn^2+n^3$
2. $a^3+12a^2+48a+64$
3. $a^3-18a^2+108a-216$
4. $x^3+6x^2y+12xy^2+8y^3$
5. $27a^3+54a^2+36a+8$
6. $8x^3-36x^2+54x-27$
7. $a^6-3a^4b^2+3a^2b^4-b^6$
8. $a^6+6a^4b+12a^2b^2+8b^3$
9. $27a^3-54a^2b^2+36ab^4-8b^6$
10. $a^9+9a^6+27a^3+27$
11. $x^3y^3-3x^4y^2+3x^5y-x^6$
12. $8x^3y^6+12x^4y^5+6x^5y^4+x^6y^3$
13. $a^3b^3-9a^2b^3c+27ab^3c^2-27b^3c^3$
14. $8+36ab+54a^2b^2+27a^3b^3$
15. $0,001+0,03b+0,3b^2+b^3$
16. $\dfrac{a^3}{8}-3a^2+24a-64$
17. $a^6+3a^3+3+\dfrac{1}{a^3}$
18. $x^3+6x+\dfrac{12}{x}+\dfrac{8}{x^3}$
19. $a^{3n}+3a^{2n}b^m+3a^nb^{2m}+b^{3m}$
20. $x^{3n}+3x^{2n}y^{2m}+3x^ny^{4m}+y^{6m}$
21. $4;a^3$
22. $b;a^3;b^2$
23. $b^2;a^6;3a^4b^2$
24. $n^2;3n^2m^2$
25. $k;m^2;m^6$
26. $(a+4)^3$
27. $(a-7)^3$
28. $(a+3)^3$
29. $(a-2b)^3$
30. $(3a+2b)^3$
31. u^3+v^3
32. a^3+125
33. $8a^3+27b^3$
34. $\dfrac{1}{64}+a^3$
35. $\dfrac{a^3}{8}+8b^3$
36. a^9+a^3
37. $0,008+b^6$
38. $0,125a^3+0,008b^3$
39. $a^{3n}+b^{3m}$
40. $a^{3n}+a^9$
41. p^3-q^3
42. a^3-27
43. b^3-64
44. $27+a^6$
45. $0,001-a^3$
46. -2
47. -6
48. $24x$
49. $-a^3+3$
50. $9a-6$
51. a^2+a-19
52. 23
53. $-7x^2+26x-27$
54. $-2+2y^3$
55. $27x-54$
56. 18
57. 21
58. 96
59. 5
60. 9
61. 8
62. 24
63. 9

64. 15
65. 28
66. 27
67. 180
68. 40
69. 16
70. 10
71. 21
72. 66
73. 61
74. 67
75. 60
76. 7
77. 43
78. 29
79. 56
80. 26
81. 39
82. 30
83. 1
84. 18
85. 88
86. -16
87. 433
88. 392
89. ± 9
90. ± 11
91. ± 4
92. 9
93. 82
94. 833
95. 4
96. 5
97. $x^{256} - 2^{256}$
98. $1 - x^{512}$
99. -1
100. 1
101. $\frac{-1}{8}$
102. 1
103. 49
104. 10
105. 46
106. $a^2 - 2b$
107. $a^3 - 3ab$
108. $a^4 - 4a^2b + 2b^2$
109. $a^6 - 6a^4b + 9a^2b^2 - 2b^3$
110. 123
111. 573
112. 2
113. 2
114. -9
115. -7

Mavzuga doir murakkab masalalar yechilish usullari bilan tanishish uchun QR code ni skanerlang yoki suratga olib, *@idcuzbot* ga yuboring.

Qaydlar uchun