

Шифр 32

Внесите в таблицу номера правильных ответов. В заданиях, в которых отсутствуют варианты ответов, внесите правильный ответ.

1	2	3	4	5	6	7	8	9	10
5	2			14	2	4	5	4	2
-	+	-	-	-	+	-	-	-	+

11	12	13	14	15	16	17	18	19	20
4	5		4	3	5	3	4	4	21
-	+	-	+	-	-	-	-	-	-

$$a = \frac{1}{\sqrt{81}} + \frac{1}{\sqrt{3}} \quad b = \frac{1}{\sqrt{81}} - \frac{1}{\sqrt{3}}$$

$$\frac{\left(\frac{1}{\sqrt{81}} + \frac{1}{\sqrt{3}}\right)^3 - \left(\frac{1}{\sqrt{81}} - \frac{1}{\sqrt{3}}\right)^3}{\left(\frac{1}{\sqrt{81}} - \frac{1}{\sqrt{3}} - \frac{1}{\sqrt{81}} + \frac{1}{\sqrt{3}}\right)^3}$$

$$\frac{1}{125} \sqrt{-\frac{x}{5} + 1} = \left(\frac{x}{5} - 1\right)^2 \left(\frac{x}{5} - 1\right)$$

$$\frac{1}{15625} \left(-\frac{x}{5} - 1\right) = \frac{x^2 - 2x + 1}{25}$$

$$-\frac{x}{78125} + \frac{1}{15625} = \frac{x^2}{25} + \frac{2x}{5} + 1$$

$$-\frac{x+5}{78125} = \frac{x^2 + 10x + 25}{25}$$

$$-\frac{x+5}{78125} = \frac{x^4 + 100x^2 + 625}{625} \quad | \cdot 625$$

$$625(-x+5) = x^4 + 100x^2 + 625$$

$$\begin{array}{r} 625 \\ \times 4 \\ \hline 2500 \\ \times 2 \\ \hline 1250 \end{array}$$

$$\begin{array}{r} 32 \\ \times 625 \\ \hline 1925 \end{array}$$

$$-\frac{x+5}{125} = x^4 + 100x^2 + 625$$

$$x^4 + 100x^2 + 625 = -\frac{x+5}{125}$$

$$125(x^4 + 100x^2 + 625) = -x + 5$$

$$125x^4 + 12500x^2 + 78125 = -x + 5$$

$$125x^4 + 12500x^2 + x + 78125 - 5 = 0$$

$$125x^4 + 12500x^2 + x + 78120 = 0$$

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$$\begin{array}{r} 125 \\ \times 125 \\ \hline 625 \\ \times 25 \\ \hline 125 \\ 50 \\ \hline 625 \end{array}$$

$$\begin{array}{r} 125 \\ \times 125 \\ \hline 625 \\ \times 25 \\ \hline 125 \\ 50 \\ \hline 625 \\ \times 5 \\ \hline 3125 \\ \times 25 \\ \hline 15625 \end{array}$$

- 1) 5
- 2) 2
- 3) 2
- 4) 2
- 5) 3
- 6) 3
- 7) 4
- 8) 5
- 9) 5
- 10) 2
- 11) 1
- 12) 5
- 13) 4
- 14) 4
- 15) 4

- 16) 3
- 17) 5
- 18) 3
- 19) 3
- 20) 3

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$$\begin{array}{r} 48125 \overline{) 625} \\ -625 \\ \hline 1562 \\ -1250 \\ \hline 3125 \end{array}$$

$$\begin{array}{r} x^3 - 5x^2 + 6x - 6 = 0 \\ x^3(x^2 + 5) - 6(x-1) = 0 \\ x^3(x^2 + 5) = 6(x-1) \end{array}$$

$$\begin{array}{r} 625 \\ \times 5 \\ \hline 3125 \\ \times 5 \\ \hline 15625 \end{array}$$

$$\begin{array}{r} 625 \\ \times 7 \\ \hline 4375 \end{array}$$

$$\begin{array}{r} 78125 \overline{) 625} \\ -625 \\ \hline 5625 \end{array}$$

$$\frac{x(x+4)}{x-9} - \frac{1}{x-5} = \frac{1}{5-x} + \frac{2}{x-9}$$

$$\frac{x(x+4)}{x-9} - \frac{1}{x-5} = \frac{2x-10}{(x-9)(x-5)} - \frac{x-9}{(x-9)(x-5)} = \frac{2x-10-x+9}{(x-9)(x-5)} = \frac{x-1}{(x-9)(x-5)}$$

$$\frac{x(x+4)}{x-9} - \frac{1}{x-5} = \frac{1}{5-x} + \frac{2}{x-9} = \frac{(x-9) + (10-2x)}{(5-x)(x-9)} = \frac{-x+1}{(5-x)(x-9)}$$

$$\frac{x(x+4)}{(x-9)(x-5)} = \frac{5}{(5-x)(x-9)}$$

$$\frac{x(x+4) \cdot (x-9)(x-5)}{x-1} = \frac{5 \cdot (5-x)(x-9)}{-x+1}$$

$$x(x+4)(x-9)(x-5) \cdot (-x+1) = (x-1)5(5-x)(x-9)$$

$$(a-b)(a-b) = a^2 - 2ab + b^2$$

⑤ $|x-7| + |y+11| \leq 4$

$$x+7+y+11 \leq 4$$

$$x+7+y+11-4 \leq 0$$

$$x+y+14 \leq 0$$

$$x+y \leq -14$$

$$x \leq -14-y$$

$$y = 14-x$$

$$x+14-x \leq 0$$

$$14 \leq 0$$

$$(14-y) + y \leq 14$$

$$14 - y + y \leq 14$$

$$6x - x^2 + 16 \neq 0$$

$$-x^2 + 6x + 16 \neq 0$$

$$9 = 6^2 - 4 \cdot (-1) \cdot 16 = 36 + 64 = 100 = 10^2$$

$$x_1 = \frac{-6+10}{-2} = -2$$

$$x_2 = \frac{-6-10}{-2} = 8$$

$$8 + (-2) + 5 + (-2) = 8 - 2 + 5 - 2 = 9$$

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

$$6x - x^2 + 16 \geq 0$$

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

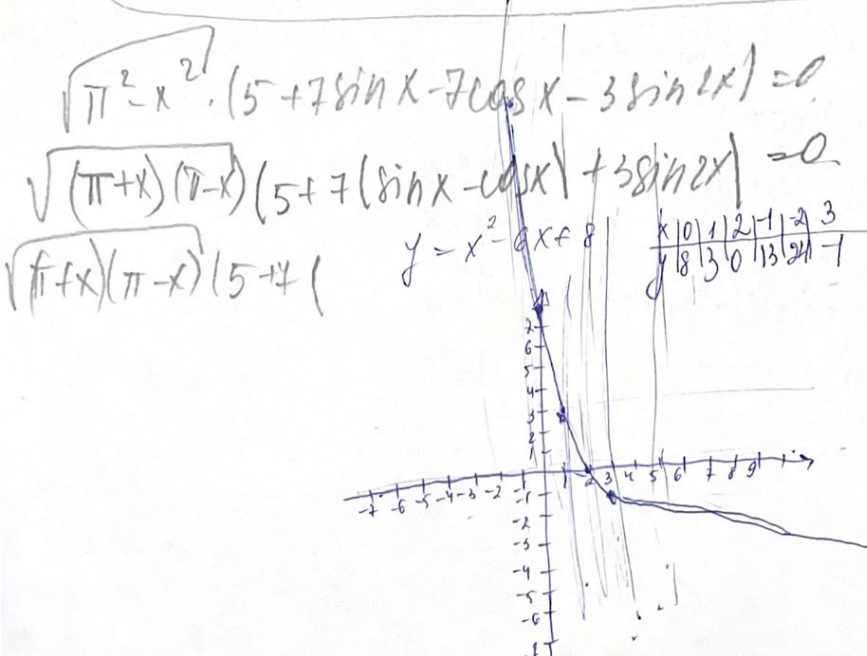
$$x^2 - 10 - 3x \geq 0$$

$$x^2 - 3x - 10 \geq 0$$

$$\Delta = 9 - 4 \cdot (-1) \cdot 10 = 49 = 7^2$$

$$x_1 = \frac{3+7}{2} = 5$$

$$x_2 = \frac{3-7}{2} = -2$$



$$1 - 6 + 8 = 3$$

$$-5 + 8 = 3$$

$$4 - 12 + 8 = -8 + 8 = 0$$

$$(-1)^2 - 6 \cdot (-1) + 8 = 1 + 6 + 8 = 15$$

$$4 + 12 + 8 = 24$$

$$3^2 - 6 \cdot 3 + 8 = 9 - 18 + 8 = -1$$