Mathematics Marathon 27/07/2023 Tasks

27.07.23

Задачи, линейные уравнения

№ 1, 9, 15, 20, 25

№ 1, 7, 10

№ 4, 7

1. $n+2=6 = 6-2 = 4$

9. $5c-22 \; 33 = 33+2 = 5c = 35 = 7 = c$

15. $2x+5=9; +2x=4; x=2$

20. $x-1+x-2+x-3=0$

~~25~~. $x-1+x-2 = x+3$

$x+x+x = 1+2+3$

$3x = 6$

$x = 6:3$

$x = 2$

~~25~~. $5x+12 = 3x-24$

$5x-3x = -24-12$

$2x = -36$

$x = -18$

1. 8 ✱ $2(x-4)=16$

$2(x-4)=16-8=8$

$(x-4)=8:2$

$x-4=4$

$x=4+4$

$x=8.$

7. $x+2x+3x+4x=23780$

$10x=23780$

$x=2378$

10. $x=5\cdot x$

$5x-x\cdot 5\cdot x=0$

$-4x=0$

$x=0$

4. $2x=5x-5+18$

$-5x+2x=18$

$-3x=18$

$x=-6$

$$x - \frac{1 - \frac{3x}{2}}{4} = \frac{2 - \frac{x}{4}}{3} - \frac{11}{12}$$

$$x = \frac{1 - \frac{3x}{2}}{4} + \frac{2 - \frac{x}{4}}{3} - \frac{11}{12}$$

$$x = \frac{3 - \frac{9x}{6}}{12} + \frac{8 - \frac{4x}{16}}{12} - \frac{11}{12}$$

$$x = 3 - \frac{9x}{6} + 8 - \frac{4x}{16} - 11$$

$$x = 3 - \frac{3x}{2} + 8 - \frac{x}{4} - 11$$

$$x = -\frac{3x}{2} - \frac{x}{4} + 3 + 8 - 11$$

$$x = -\frac{3x}{2} - \frac{x}{4}$$

$$x = -\frac{6x}{4} - \frac{x}{4}$$

$$x = -7x$$

$$8x = 0$$

$$x = 0$$