

1.

$$2 \cdot (2x - 3) = x \cdot (4 - 2)$$

$$4x - 6 = x \cdot 2$$

$$4x - 6 = 2x \quad | -2x$$

$$2x - 6 = 0 \quad | +6$$

$$2x = 6 \quad | :2$$

$$\underline{\underline{x = 3}}$$

2.

$$3 \cdot (x - 2) = x$$

$$3x - 6 = x \quad | -x$$

$$2x - 6 = 0 \quad | +6$$

$$2x = 6 \quad | :2$$

$$\underline{\underline{x = 3}}$$

3.

$$8 \cdot (x + 1) = 4x + 16$$

$$8x + 8 = 4x + 16 \quad | -4x$$

$$4x + 8 = 16 \quad | -8$$

$$4x = 8 \quad | :4$$

$$\underline{\underline{x = 2}}$$

4.

$$4x + 2 - 3x = 2 + 2x - 2$$

$$x + 2 = 2x \quad | -x$$

$$\underline{\underline{2 = x}}$$

5.

$$4 \cdot (2x + 1) = 2x - 2$$

$$8x + 4 = 2x - 2 \quad | -2x$$

$$6x + 4 = -2 \quad | -4$$

$$6x = -6 \quad | :6$$

$$\underline{\underline{x = -1}}$$

6.

$$2x + 5 - x + 2 + 2x = 4x - 2x + 1$$

$$3x + 7 = 2x + 1 \quad | -2x$$

$$x + 7 = 1 \quad | -7$$

$$\underline{\underline{x = -6}}$$

7.

$$x \cdot (2 - 1 + 2) + x = x - 2 + 4$$

$$x \cdot 3 + x = x + 2$$

$$4x = x + 2 \quad | -x$$

$$3x = 2 \quad | :3$$

$$\underline{\underline{x = \frac{2}{3}}}$$

8.

$$2 \cdot (x + 3) = 3 \cdot (x - 1)$$

$$2x + 6 = 3x - 3 \quad | -2x$$

$$6 = x - 3 \quad | +3$$

$$\underline{\underline{9 = x}}$$

9.

$$5 \cdot (3x - 4) = 7 \cdot (2x + 3)$$

$$15x - 20 = 14x + 21 \quad | -14x$$

$$x - 20 = 21 \quad | +20$$

$$\underline{\underline{x = 41}}$$

10.

$$-7 \cdot (3x + 2) + 8 = -6 \cdot (5x + 1) + 9$$

$$-21x - 14 + 8 = -30x - 6 + 9$$

$$-21x - 6 = -30x + 3 \quad | +30x$$

$$9x - 6 = 3 \quad | +6$$

$$9x = 9 \quad | :9$$

$$\underline{\underline{x = 1}}$$

11.

$$3 \cdot (x - 1) = 2x + 3$$

$$3x - 3 = 2x + 3 \quad | -2x$$

$$x - 3 = 3 \quad | +3$$

$$\underline{\underline{x = 6}}$$

12.

$$32 = -x + 4 \cdot (2x - 5) + 31$$

$$32 = -x + 8x - 20 + 31$$

$$32 = 7x + 11 \quad | -11$$

$$21 = 7x \quad | :7$$

$$\underline{\underline{3 = x}}$$

13.

$$27 = (2x - 7) \cdot 10 - 3 + 5$$

$$27 = 20x - 70 - 3 + 5$$

$$27 = 20x - 68 \quad | +68$$

$$95 = 20x \quad | :20$$

$$\frac{95}{20} = x$$

$$x = \frac{19}{4}$$

14.

$$6x + 10 = 3 \cdot (4x - 20) - 2$$

$$6x + 10 = 12x - 60 - 2$$

$$6x + 10 = 12x - 62 \quad | -6x$$

$$10 = 6x - 62 \quad | +62$$

$$72 = 6x \quad | :6$$

$$\underline{\underline{12 = x}}$$

15.

$$-6 \cdot (x + 5) = 4x$$

$$-6x - 30 = 4x \quad | +6x$$

$$-30 = 10x \quad | :10$$

$$\underline{\underline{-3 = x}}$$

16.

$$2x - 5 = 25 + x \quad | -x$$

$$x - 5 = 25 \quad | +5$$

$$\underline{\underline{x = 30}}$$