

1次方程式の解き方④解答と解説

1 解答 (1) $x = -3$ (2) $x = 5$ (3) $x = 7$ (4) $x = -6$

(1) $0.6x - 1.8 = 1.3x + 0.3$

両辺に 10 をかけると

$$(0.6x - 1.8) \times 10 = (1.3x + 0.3) \times 10$$

$$6x - 18 = 13x + 3$$

$$6x - 13x = 3 + 18$$

$$-7x = 21$$

$$x = -3$$

(2) $2.9 - 0.7x = 0.2x - 1.6$

両辺に 10 をかけると

$$(2.9 - 0.7x) \times 10 = (0.2x - 1.6) \times 10$$

$$29 - 7x = 2x - 16$$

$$-7x - 2x = -16 - 29$$

$$-9x = -45$$

$$x = 5$$

(3) $0.02x - 0.23 = -0.03x + 0.12$

両辺に 100 をかけると

$$(0.02x - 0.23) \times 100 = (-0.03x + 0.12) \times 100$$

$$2x - 23 = -3x + 12$$

$$2x + 3x = 12 + 23$$

$$5x = 35$$

$$x = 7$$

(4) $-0.54 + 1.35x = -1.02 + 1.27x$

両辺に 100 をかけると

$$(-0.54 + 1.35x) \times 100 = (-1.02 + 1.27x) \times 100$$

$$-54 + 135x = -102 + 127x$$

$$135x - 127x = -102 + 54$$

$$8x = -48$$

$$x = -6$$

2 解答 (1) $x = -3$ (2) $x = 2$ (3) $x = 7$ (4) $x = 3$ (5) $x = 5$

(6) $x = -3$ (7) $x = -2$ (8) $x = -4$ (9) $x = -7$

(1) $1.1x + 1.8 = 0.5x$

両辺に 10 をかけると $(1.1x + 1.8) \times 10 = 0.5x \times 10$
 $11x + 18 = 5x$
 $11x - 5x = -18$
 $6x = -18$
 $x = -3$

(2) $0.07 - 0.13x = -0.19$

両辺に 100 をかけると $(0.07 - 0.13x) \times 100 = -0.19 \times 100$
 $7 - 13x = -19$
 $-13x = -19 - 7$
 $-13x = -26$
 $x = 2$

(3) $x - 0.3 = 0.8x + 1.1$

両辺に 10 をかけると $(x - 0.3) \times 10 = (0.8x + 1.1) \times 10$
 $10x - 3 = 8x + 11$
 $10x - 8x = 11 + 3$
 $2x = 14$
 $x = 7$

(4) $0.9x + 2.4 = 1.7x$

両辺に 10 をかけると $(0.9x + 2.4) \times 10 = 1.7x \times 10$
 $9x + 24 = 17x$
 $9x - 17x = -24$
 $-8x = -24$
 $x = 3$

(5) $0.4x - 0.5 = 2 - 0.1x$

両辺に 10 をかけると $(0.4x - 0.5) \times 10 = (2 - 0.1x) \times 10$
 $4x - 5 = 20 - x$
 $4x + x = 20 + 5$
 $5x = 25$
 $x = 5$

(6) $0.3x - 1.6 = 1.3x + 1.4$

両辺に 10 をかけると $(0.3x - 1.6) \times 10 = (1.3x + 1.4) \times 10$

$$3x - 16 = 13x + 14$$

$$3x - 13x = 14 + 16$$

$$-10x = 30$$

$$x = -3$$

(7) $0.2x + 1 = -x - 1.4$

両辺に 10 をかけると $(0.2x + 1) \times 10 = (-x - 1.4) \times 10$
 $2x + 10 = -10x - 14$
 $2x + 10x = -14 - 10$
 $12x = -24$
 $x = -2$

(8) $0.22x - 0.4 = 0.3x - 0.08$

両辺に 100 をかけると $(0.22x - 0.4) \times 100 = (0.3x - 0.08) \times 100$
 $22x - 40 = 30x - 8$
 $22x - 30x = -8 + 40$
 $-8x = 32$
 $x = -4$

(9) $0.65x - 2.1 = 1.35x + 2.8$

両辺に 100 をかけると $(0.65x - 2.1) \times 100 = (1.35x + 2.8) \times 100$
 $65x - 210 = 135x + 280$
 $65x - 135x = 280 + 210$
 $-70x = 490$
 $x = -7$