

方程式 [いろいろな1次方程式(2)]

<演習問題>

次の方程式を解け。

(1) $0.3x + 0.5 = 0.6x - 0.1$

(6) $\frac{x-1}{2} = \frac{4x+6}{3}$

(2) $0.2x - 3.5 = 0.7x - 0.5$

(7) $\frac{4x-1}{3} = \frac{5x+10}{6}$

(3) $2.7 - 0.4x = 0.1x + 0.2$

(8) $\frac{4-x}{2} = \frac{7-4x}{5}$

(4) $0.4x + 0.28 = 0.01x - 0.5$

(9) $\frac{11-x}{4} + x = \frac{3x+13}{5}$

(5) $x = \frac{5x-12}{7}$

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次の方程式を解け。

$$(1) \quad 0.3x + 0.5 = 0.6x - 0.1$$

$$0.3x + 0.5 = 0.6x - 0.1$$

$$(0.3x + 0.5) \times 10 = (0.6x - 0.1) \times 10$$

$$3x + 5 = 6x - 1$$

$$3x - 6x = -1 - 5$$

$$-3x = -6$$

$$x = 2$$

$$(2) \quad 0.2x - 3.5 = 0.7x - 0.5$$

$$0.2x - 3.5 = 0.7x - 0.5$$

$$(0.2x - 3.5) \times 10 = (0.7x - 0.5) \times 10$$

$$2x - 35 = 7x - 5$$

$$2x - 7x = -5 + 35$$

$$-5x = 30$$

$$x = -6$$

$$(3) \quad 2.7 - 0.4x = 0.1x + 0.2$$

$$2.7 - 0.4x = 0.1x + 0.2$$

$$(2.7 - 0.4x) \times 10 = (0.1x + 0.2) \times 10$$

$$27 - 4x = x + 2$$

$$-4x - x = 2 - 27$$

$$-5x = -25$$

$$x = 5$$

$$(4) \quad 0.4x + 0.28 = 0.01x - 0.5$$

$$0.4x + 0.28 = 0.01x - 0.5$$

$$(0.4x + 0.28) \times 100 = (0.01x - 0.5) \times 100$$

$$40x + 28 = x - 50$$

$$40x - x = -50 - 28$$

$$39x = -78$$

$$x = -2$$

$$(5) \quad x = \frac{5x-12}{7}$$

$$x = \frac{5x-12}{7}$$

$$x \times 7 = \frac{5x-12}{7} \times 7$$

$$7x = 5x - 12$$

$$7x - 5x = -12$$

$$2x = -12$$

$$x = -6$$

$$(6) \quad \frac{x-1}{2} = \frac{4x+6}{3}$$

$$\frac{x-1}{2} = \frac{4x+6}{3}$$

$$\frac{x-1}{2} \times 6 = \frac{4x+6}{3} \times 6$$

$$(x-1) \times 3 = (4x+6) \times 2$$

$$3x - 3 = 8x + 12$$

$$3x - 8x = 12 + 3$$

$$-5x = 15$$

$$x = -3$$

$$(7) \quad \frac{4x-1}{3} = \frac{5x+10}{6}$$

$$\frac{4x-1}{3} = \frac{5x+10}{6}$$

$$\frac{4x-1}{3} \times 6 = \frac{5x+10}{6} \times 6$$

$$(4x-1) \times 2 = 5x+10$$

$$8x - 2 = 5x + 10$$

$$8x - 5x = 10 + 2$$

$$3x = 12$$

$$x = 4$$

$$(8) \quad \frac{4-x}{2} = \frac{7-4x}{5}$$

$$\frac{4-x}{2} = \frac{7-4x}{5}$$

$$\frac{4-x}{2} \times 10 = \frac{7-4x}{5} \times 10$$

$$(4-x) \times 5 = (7-4x) \times 2$$

$$20 - 5x = 14 - 8x$$

$$-5x + 8x = 14 - 20$$

$$3x = -6$$

$$x = -2$$

$$(9) \quad \frac{11-x}{4} + x = \frac{3x+13}{5}$$

$$\frac{11-x}{4} + x = \frac{3x+13}{5}$$

$$\frac{11-x}{4} \times 20 + x \times 20 = \frac{3x+13}{5} \times 20$$

$$(11-x) \times 5 + 20x = (3x+13) \times 4$$

$$55 - 5x + 20x = 12x + 52$$

$$-5x + 20x - 12x = 52 - 55$$

$$3x = -3$$

$$x = -1$$