

舞羽と夏奈子 1次方程式

$$(1) \quad 3x - 5 = 4x + 3$$

$$3x - 4x = 3 + 5$$

$$-x = 8$$

$$x = -8$$

$$(2) \quad x - 1 = 3x - 2$$

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

$$-2x = -1$$

$$x = \frac{1}{2}$$

$$(3) \quad 9x + 2 = 8(x + 1)$$

$$9x + 2 = 8x + 8$$

$$9x - 8x = 8 - 2$$

$$x = 6$$

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

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

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

$$x = 4$$

$$(5) \quad 9x - 3(2x - 6) = 9$$

$$9x - 6x + 18 = 9$$

$$9x - 6x = 9 - 18$$

$$3x = -9$$

$$x = -3$$

$$(6) \quad 1 - 2(x - 3) = 4(x + 5) - 6$$

$$1 - 2x + 6 = 4x + 20 - 6$$

$$-2x - 4x = 20 - 6 - 1 - 6$$

$$-6x = 7$$

$$x = -\frac{7}{6}$$

$$(7) \quad 1.2x - 4 = 0.9 - 2.3x$$

$$12x - 40 = 9 - 23x$$

$$12x + 23x = 9 + 40$$

$$35x = 49$$

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

$$(8) \quad 1.6x = 0.05(5x - 9) - 1.8$$

$$160x = 5(5x - 9) - 180$$

$$160x = 25x - 45 - 180$$

$$160x - 25x = -45 - 180$$

$$135x = -225$$

$$x = -\frac{5}{3}$$

$$(9) \quad 0.02(4x + 11) = 0.11(x - 1)$$

$$2(4x + 11) = 11(x - 1)$$

$$8x + 22 = 11x - 11$$

$$8x - 11x = -11 - 22$$

$$-3x = -33$$

$$x = 11$$

$$(10) \frac{2}{3}x - 1 = \frac{1}{6}x + 2$$

$$4x - 6 = x + 12$$

$$4x - x = 12 + 6$$

$$3x = 18$$

$$x = 6$$

$$(11) \frac{3x - 2}{6} = \frac{4x + 1}{4}$$

$$2(3x - 2) = 3(4x + 1)$$

$$6x - 4 = 12x + 3$$

$$6x - 12x = 3 + 4$$

$$-6x = 7$$

$$x = -\frac{7}{6}$$

$$(12) \frac{3}{5} \left(\frac{x}{2} - 1 \right) = 0.5x$$

$$6 \left(\frac{x}{2} - 1 \right) = 5x$$

$$3x - 6 = 5x$$

$$3x - 5x = 6$$

$$-2x = 6$$

$$x = -3$$

$$(13) \frac{x - 7}{2} - \frac{5x - 3}{6} = -7$$

$$3(x - 7) - (5x - 3) = -42$$

$$3x - 21 - 5x + 3 = -42$$

$$3x - 5x = -42 + 21 - 3$$

$$-2x = -24$$

$$x = 12$$

$$(14) \quad 1 - \frac{x-3}{4} = \frac{2x-3}{3}$$

$$12 - 3(x-3) = 4(2x-3)$$

$$12 - 3x + 9 = 8x - 12$$

$$-3x - 8x = -12 - 12 - 9$$

$$-11x = -33$$

$$x = 3$$

$$(15) \quad 0.3(x-0.9) = \frac{x}{4} + \frac{2}{25}$$

$$3(10x-9) = 25x + 8$$

$$30x - 27 = 25x + 8$$

$$30x - 25x = 8 + 27$$

$$5x = 35$$

$$x = 7$$

$$(16) \quad 4x - 3\left(x - \frac{2-5x}{7}\right) = \frac{8x-1}{3}$$

$$84x - 63x + 18 - 45x = 56x - 7$$

$$84x - 63x - 45x - 56x = -7 - 18$$

$$-80x = -25$$

$$x = \frac{5}{16}$$

$$(17) \ 0.2 \left(0.3x - \frac{7}{4} \right) = 0.16x - 1$$

$$6x - 35 = 16x - 100$$

$$6x - 16x = -100 + 35$$

$$-10x = -65$$

$$x = -\frac{13}{2}$$

$$(18) \ 0.5(x - 0.2) - \frac{2}{25}x = 2$$

$$50x - 10 - 8x = 200$$

$$50x - 8x = 200 + 10$$

$$42x = 210$$

$$x = 5$$

$$(19) \ (-2)^2 + \left\{ x - \left(-\frac{1}{2} \right)^3 \right\} \times 4 = 17$$

$$4 + 4x + \frac{1}{2} = 17$$

$$8 + 8x + 1 = 34$$

$$8x = 34 - 1 - 8$$

$$8x = 25$$

$$x = \frac{25}{8}$$

$$(20) \frac{59}{12}x + 0.25\left(x - \frac{4}{3}\right) = \frac{11(2-x)}{6}$$

両辺を12倍して、

$$59x + 3x - 4 = 44 - 22x$$

$$59x + 3x + 22x = 44 + 4$$

$$84x = 48$$

$$x = \frac{4}{7}$$