

1)

$$2x = 6$$

$$\frac{2x}{2} = \frac{6}{2}$$

$$x = 3$$

2)

$$3x = 12$$

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4$$

3)

$$8x = 40$$

$$\frac{8x}{8} = \frac{40}{8}$$

$$x = 5$$

4)

$$10x = 20$$

$$\frac{10x}{10} = \frac{20}{10}$$

$$x = 2$$

5)

$$2x = -6$$

$$\frac{2x}{2} = -\frac{6}{2}$$

$$x = -3$$

6)

$$7x = -14$$

$$\frac{7x}{7} = -\frac{14}{7}$$

$$x = -2$$

p1

$$1) \quad +3x+1 = +x+3$$

$$3x - x = 3 - 1$$

$$2x = 2$$

$$x = 1$$

$$2) \quad 5x - 9 = 2x + 3$$

$$5x - 2x = 3 + 9$$

$$3x = 12$$

$$x = 4$$

$$3) \quad -x = 6x - 7$$

$$-x - 6x = -7$$

$$x + 6x = 7$$

$$7x = 7$$

$$x = 1$$

$$4) \quad -6x - 2 = -14$$

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$$6x + 2 = 14$$

$$6x = 14 - 2$$

$$6x = 12$$

$$x = 2$$

$$5) \quad 4x + 5 = x - 4$$

$$4x - x = -5 - 4$$

$$3x = -9$$

$$x = -3$$

$$6) \quad 5x + 4 = -x + 16$$

$$5x + x = 16 - 4$$

$$6x = 12$$

$$x = 2$$

p3

$$1) x = \frac{2}{3}x + 1$$

$$3x = 2x + 3$$

$$3x - 2x = 3$$

$$x = 3$$

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

$$18 - x = 3 - 6x$$

$$6x - x = 3 - 18$$

$$5x = -15$$

$$x = -3$$

$$3) \frac{3}{4}x - \frac{1}{2} = \frac{2}{3}x - \frac{7}{6}$$

両辺を平等化

$$9x - 6 = 8x - 14$$

全て何倍かして

$$9x - 8x = 6 - 14$$

分数をなくす!

$$x = -8$$

$$4) \frac{2}{3}x - \frac{5}{12} = x + \frac{5}{4}$$

$$8x - 5 = 12x + 15$$

$$8x - 12x = 15 + 5$$

$$-4x = 20$$

$$x = -5 \quad \text{pt}$$

$$1) 0.5x - 2 = 8$$

$$5x - 20 = 80$$

$$5x = 80 + 20$$

$$5x = 100$$

$$x = 20$$

$$2) 0.2x - 0.5 = 0.3$$

$$2x - 5 = 3$$

$$2x = 3 + 5$$

$$2x = 8$$

$$x = 4$$

$$3) 0.25x + 0.03 = 0.28$$

$$25x + 3 = 28$$

$$25x = 28 - 3$$

$$25x = 25 \Rightarrow x = 1$$

$$4) 1.03x - 1.4 = 0.28x + 0.85$$

$$103x - 140 = 28x + 85$$

$$103x - 28x = 85 + 140$$

$$75x = 225 \Rightarrow x = 3$$

両辺を等号に全て

何倍かして小数をなくす!

p5

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

$$+3x - 15 = +4x - 1$$

$$3x - 4x = 15 - 1$$

$$-x = +14$$

$$x = -14$$

左に文字
右に数字

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

$$+8x + 4 = +12x + 3$$

$$8x - 12x = 3 - 4$$

$$-4x = -1$$

$$x = -\frac{1}{4}$$

$$x = -\frac{1}{4}$$

= を起之ると逆

$$+ = -$$

$$- = +$$

初項の符号は、

+は-, -は+に

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

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

$$3x + x = 5 + 1 + 3$$

$$6x = 9 \quad x = \frac{9}{6} \quad x = \frac{3}{2} \quad pb$$

$$1) \quad 0.8x - 4 = 2.3 - 0.1x$$

$$8x - 40 = 23 - x$$

$\downarrow \times 10$

$$8x + x = 23 + 40$$

$$9x = 63, \quad x = 7$$

$$2) \quad 0.8x - (0.01x + 2) = 0.03x - 2$$

$$0.8x - 0.01x - 2 = 0.03x - 2$$

$$80x - x - 200 = +3x - 200$$

$\downarrow \times 100$

$$80x - x - 3x = -200 + 200$$

$$76x = 0 \quad x = 0$$

$$3) \quad 0.03(2x - 1) = 0.05(x + 2)$$

$$3(2x - 1) = 5(x + 2)$$

$\downarrow \times 100$

$$+6x - 3 = +5x + 10$$

$$6x - 5x = 10 + 3$$

$$x = 13$$

27

1)

$$\frac{5x+1}{4} = \frac{3}{2}x$$

$$+5x+1 = +6x$$

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

$$-x = -1$$

$$x = 1$$

4と2の

↓ $\times 4$ 最小公倍数が
4より4倍する。

または通分すると
4より、4倍する。

2)

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

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

$$+9x-12-2x-1 = +2x+2$$

$$9x-2x-2x = 2+12+1$$

$$\frac{5x}{5} = \frac{15}{5}, \quad x = 3$$

省略されているか、分子分母には
カッコがある。だから \sim の所は逆意!

28

$$1) \quad \frac{1}{20}x - 0.9 = \frac{3}{100}x - 0.2$$

$$5x - 90 = 3x - 20$$

$\downarrow \times 100$

$$5x - 3x = 90 - 20$$

$$\frac{2x}{2} = \frac{70}{2} \quad x = 35$$

$$2) \quad 4(x-1) = \frac{5x-7}{3} + 2x$$

$$12(x-1) = 5x-7+6x$$

$\downarrow \times 3$

$$12x - 12 = 5x - 7 + 6x$$

$$12x - 5x - 6x = 12 - 7 \Rightarrow x = 5$$

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

$$x - 3 - 6 = 3x - 12$$

$\downarrow \times 6$

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

$$-2x = -3$$

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

p9

$$1) \frac{6x-5}{9} - \frac{7-4x}{12} = 2x - \frac{3x+7}{6} \quad \downarrow \times 36$$

$$4(6x-5) - 3(7-4x) = 72x - 6(3x+7)$$

$$24x - 20 - 21 + 12x = 72x - 18x - 42$$

$$24x + 12x - 72x + 18x = -42 + 20 + 21$$

$$-18x = -1 \quad x = \frac{1}{18}$$

$$2) 0.5(x-9) = -1.3x \quad \downarrow \times 10$$

$$5(x-9) = -13x$$

$$5x - 45 = -13x$$

$$18x = 45, x =$$

$$x = \frac{45}{18}, x = \frac{5}{2}$$

注意

$$0.7(2x-3) = 0.5(2x \dots)$$

両辺を10倍する時、左辺は

0.7(2x-3)の0.7だけ10倍。

右辺も0.5だけ10倍

$\times 10$

question 問題

p1

1)

$$2x = 6$$

2)

$$3x = 12$$

3)

$$8x = 40$$

4)

$$10x = 20$$

5)

$$2x = -6$$

6)

$$7x = -14$$

p2

7)

$$-5x = 10$$

8)

$$-4x = 8$$

9)

$$-3x = 15$$

10)

$$-7x = -21$$

11)

$$-9x = -54$$

12)

$$-2x = -6$$

p3

1)

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

2)

$$5x - 9 = 2x + 3$$

3)

$$-x = 6x - 7$$

4)

$$-6x - 2 = -14$$

5)

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

6)

$$5x + 4 = -x + 16$$

p11

p4

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

$$3) \frac{3}{4}x - \frac{1}{2} = \frac{2}{3}x - \frac{7}{6}$$

$$4) \frac{2}{3}x - \frac{5}{12} = x + \frac{5}{4}$$

p5

$$1) 0.5x - 2 = 8 \quad 2) 0.2x - 0.5 = 0.3$$

$$3) 0.25x + 0.03 = 0.28$$

$$4) 1.03x - 1.4 = 0.28x + 0.85$$

p6

$$1) 3(x - 5) = 4x - 1$$

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

$$3) 3(x - 1) = 5 - (x + 1)$$

p12

p7

1)

$$0.8x - 4 = 2.3 - 0.1x$$

2)

$$0.8x - (0.01x + 2) = 0.03x - 2$$

3)

$$0.03(2x - 1) = 0.05(x + 2)$$

p8

1)

$$\frac{5x + 1}{4} = \frac{3}{2}x$$

2)

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

p9

1)

$$\frac{1}{20}x - 0.9 = \frac{3}{100}x - 0.2$$

2)

$$4(x - 1) = \frac{5x - 7}{3} + 2x$$

3)

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

p13

p/10

1)

$$\frac{6x-5}{9} - \frac{7-4x}{12} = 2x - \frac{3x+7}{6}$$

2)

$$0.5(x-9) = -1.3x$$

p/14