

**数学科 方程式マスター H-⑦**

( )組( )番 名前( )

次の方程式を解きなさい。

①  $\frac{1}{4}x + \frac{1}{3}(4x - 42) = 5$

④  $x - \frac{x+6}{3} = 1$

②  $\frac{x}{30} + \frac{10-x}{25} = \frac{11}{30}$

⑤  $\frac{3x-6}{2} - \frac{5x-2}{4} = 1$

③  $\frac{x+4}{6} = \frac{x+1}{9}$

⑥  $\frac{5x-6}{4} - \frac{17x-3}{16} = 1$

次の方程式を解きなさい。

①  $\frac{1}{4}x + \frac{1}{3}(4x-42) = 5$

$$12 \left\{ \frac{1}{4}x + \frac{1}{3}(4x-42) \right\} = 12 \times 5$$

$$12 \times \frac{1}{4}x + 12 \times \frac{1}{3}(4x-42) = 60$$

$$3x + 4(4x-42) = 60$$

$$3x + 16x - 168 = 60$$

$$19x - 168 = 60$$

$$19x = 60 + 168$$

$$19x = 228$$

$$19x \div 19 = 228 \div 19$$

$$x = 12 \#$$

②  $\frac{x}{30} + \frac{10-x}{25} = \frac{11}{30}$

$$150 \left\{ \frac{x}{30} + \frac{10-x}{25} \right\} = 150 \times \frac{11}{30}$$

$$150 \times \frac{x}{30} + 150 \times \frac{10-x}{25} = 55$$

$$5x + 6(10-x) = 55$$

$$5x + 60 - 6x = 55$$

$$-x + 60 = 55$$

$$-x = 55 - 60$$

$$-x = -5$$

$$x = 5 \#$$

③  $\frac{x+4}{6} = \frac{x+1}{9}$

$$18 \times \frac{x+4}{6} = 18 \times \frac{x+1}{9}$$

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

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

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

$$x = -10 \#$$

④  $x - \frac{x+6}{3} = 1$

$$3 \left\{ x - \frac{x+6}{3} \right\} = 3 \times 1$$

$$3x + 3 \times \left\{ -\frac{x+6}{3} \right\} = 3$$

$$3x - (x+6) = 3$$

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

$$2x - 6 = 3$$

$$2x = 3 + 6$$

$$2x = 9$$

$$2x \div 2 = 9 \div 2$$

$$x = \frac{9}{2} \#$$

⑤  $\frac{3x-6}{2} - \frac{5x-2}{4} = 1$

$$4 \left\{ \frac{3x-6}{2} - \frac{5x-2}{4} \right\} = 4 \times 1$$

$$4 \times \frac{3x-6}{2} + 4 \times \left\{ -\frac{5x-2}{4} \right\} = 4$$

$$2(3x-6) - (5x-2) = 4$$

$$6x - 12 - 5x + 2 = 4$$

$$x - 10 = 4$$

$$x = 4 + 10$$

$$x = 14$$

⑥  $\frac{5x-6}{4} - \frac{17x-3}{16} = 1$

$$16 \left\{ \frac{5x-6}{4} - \frac{17x-3}{16} \right\} = 16 \times 1$$

$$4 \times \frac{5x-6}{4} + 16 \times \left\{ -\frac{17x-3}{16} \right\} = 16$$

$$4(5x-6) - (17x-3) = 16$$

$$20x - 24 - 17x + 3 = 16$$

$$3x - 21 = 16$$

$$3x = 16 + 21$$

$$3x = 37$$

$$3x \div 3 = 37 \div 3$$

$$x = \frac{37}{3} \#$$