



1. 次の方程式を移項を利用して解きなさい。

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| (1) $7x + 3 = 5x + 9$ $7x - 5x = 9 - 3$ $2x = 6$ $x = 3$ | (2) $-2(4a + 5) = 6(-2a + 1)$ $-8a - 10 = -12a + 6$ $12a - 8a = 10 + 6$ $4a = 16$ $a = 4$ | (3) $6(x + 2.5) = 5(x + 1.8)$ $6x + 15 = 5x + 9$ $x = -6$ |
| (4) $\frac{1}{2}x + 3 = \frac{3}{4}x - 2$ $4\left(\frac{1}{2}x + 3\right) = 4\left(\frac{3}{4}x - 2\right)$ $2x + 12 = 3x - 8$ $2x - 3x = -8 - 12$ $-x = -20$ $x = 20$ | (5) $\frac{2}{5}x + 3 = \frac{3}{4}x - \frac{1}{2}$ $20\left(\frac{2}{5}x + 3\right) = 20\left(\frac{3}{4}x - \frac{1}{2}\right)$ $8x + 60 = 15x - 10$ $7x = 70$ $x = 10$ | (6) $1.2(x + 5) = 0.8(x - 3) + 2.4$ $1.2x + 6 = 0.8x - 2.4 + 2.4$ $1.2x - 0.8x = -6$ $0.4x = -6$ $2.5 \times 0.4x = 2.5 \times (-6)$ $x = -15$ |
| (7) $0.4(x + 3) = 0.25(x - 2) + 1.2$ $0.4x + 1.2 = 0.25x - 0.5 + 1.2$ $0.4x - 0.25x = -0.5$ $0.15x \times 100 = -0.5 \times 100$ $15x = -50$ $x = -\frac{50}{15} = -\frac{10}{3}$ | (8) $\frac{3x + 5}{4} + \frac{2x - 3}{6} = \frac{x + 7}{8}$ $24\left(\frac{3x + 5}{4} + \frac{2x - 3}{6}\right) = 24\left(\frac{x + 7}{8}\right)$ $18x + 30 + 8x - 12 = 3x + 21$ $23x = 3$ $x = \frac{3}{23}$ | (9) $\frac{2x - 1}{5} + \frac{3x + 2}{7} = \frac{x + 4}{10}$ $70\left(\frac{2x - 1}{5} + \frac{3x + 2}{7}\right) = 70\left(\frac{x + 4}{10}\right)$ $28x - 14 + 30x + 20 = 7x + 28$ $51x = 22$ $x = \frac{22}{51}$ |

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|-------------------------|------------------------|-------------------------|
| (1) $x = 3$ | (2) $a = 4$ | (3) $x = -6$ |
| (4) $x = 20$ | (5) $x = 10$ | (6) $x = -15$ |
| (7) $x = -\frac{10}{3}$ | (8) $x = \frac{3}{23}$ | (9) $x = \frac{22}{51}$ |

2. 次の問いに答えなさい。

(1) ① $3x + 5 = 6x - 1$ と ② $2x + a = 10x + 4$ が同じ解をもつときの a を求めなさい。
①を解く。 $6x - 3x = 5 + 1$ より、 $x = 2$ 。これを②に代入して a を求める。
 $2 \times 2 + a = 10 \times 2 + 4$ $a = 20$

(2) $3(5x + 12) = 14x - 18$ のときの $3(x + 4)$ の値を求めなさい。
 x を求める $15x + 36 = 14x - 18$ $15x - 14x = -36 - 18$ $x = -54$ これを代入 $3(-54 + 4) = -150$

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| (1) $a = 20$ | (2) -150 |
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