

数学科 方程式マスター H-⑥

()組()番 名前()

次の方程式を解きなさい。

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

④ $2x - \frac{3x+4}{2} = 2$

② $\frac{x}{25} + \frac{19-x}{90} = \frac{1}{2}$

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

③ $\frac{x+3}{8} = \frac{x-2}{5}$

⑥ $\frac{4x+6}{5} - \frac{19x+6}{20} = -2$

次の方程式を解きなさい。

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

$10\left\{\frac{1}{2}x + \frac{1}{5}(2x+7)\right\} = 10 \times 5$

$10 \times \frac{1}{2}x + 10 \times \frac{1}{5}(2x+7) = 50$

$5x + 2(2x+7) = 50$

$5x + 4x + 14 = 50$

$9x + 14 = 50$

$9x = 50 - 14$

$9x = 36$

$9x \div 9 = 36 \div 9$

$x = 4$

② $\frac{x}{25} + \frac{(19-x)}{90} = \frac{1}{2}$

$450\left\{\frac{x}{25} + \frac{(19-x)}{90}\right\} = 450 \times \frac{1}{2}$

$18x + 5(19-x) = 225$

$18x + 95 - 5x = 225$

$13x + 95 = 225$

$13x = 225 - 95$

$13x = 130$

$x = 10$

③ $\frac{(x+3)}{8} = \frac{(x-2)}{5}$

$5(x+3) = 8(x-2)$

$5x + 15 = 8x - 16$

$5x - 8x = -15 - 16$

$-3x = -31$

$-3x \div (-3) = -31 \div (-3)$

$x = \frac{31}{3}$

④ $2x - \frac{(3x+4)}{2} = 2$

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

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

$4x - 3x - 4 = 4$

$-4x - 3x - 4 = 4$

$-7x - 4 = 4$

$-7x = 4 + 4$

$-7x = 8$

$-7x \div (-7) = 8 \div (-7)$

$x = -\frac{8}{7}$

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

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

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

$3x - 3 - 10x + 12 = 4$

$-7x + 9 = 4$

$-7x = 4 - 9$

$-7x = -5$

$-7x \div (-7) = -5 \div (-7)$

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

⑥ $\frac{(4x+6)}{5} - \frac{(19x+6)}{20} = -2$

$20\left\{\frac{(4x+6)}{5} - \frac{(19x+6)}{20}\right\} = 20 \times (-2)$

$4(4x+6) - (19x+6) = -40$

$16x + 24 - 19x - 6 = -40$

$-3x + 18 = -40$

$-3x = -40 - 18$

$-3x = -58$

$-3x \div (-3) = -58 \div (-3)$

$x = \frac{58}{3}$