

数学科 方程式マスター H-④

()組()番 名前()

次の方程式を解きなさい。

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

④ $2x - \frac{4x+3}{3} = 1$

② $\frac{x}{50} + \frac{19-x}{40} = \frac{2}{5}$

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

③ $\frac{x+4}{9} = \frac{x+4}{7}$

⑥ $\frac{x+1}{2} - \frac{9x-5}{10} = 2$

次の方程式を解きなさい。

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

$20\left\{\frac{1}{4}x + \frac{1}{5}(x+1)\right\} = 20 \times 2$

$5x + 4(x+1) = 40$

$5x + 4x + 4 = 40$

$9x + 4 = 40$

$9x = 40 - 4$

$9x = 36$

$9x \div 9 = 36 \div 9$
 $x = 4$

② $\frac{x}{50} + \frac{19-x}{40} = \frac{2}{5}$

$200\left\{\frac{x}{50} + \frac{19-x}{40}\right\} = 200 \times \frac{2}{5}$

$4x + 5(19-x) = 80$

$4x + 95 - 5x = 80$

$-x + 95 = 80$

$-x = 80 - 95$

$-x = -15$

$x = 15$

③ $\frac{x+4}{9} = \frac{x+4}{7}$

$63 \times \frac{x+4}{9} = 63 \times \frac{x+4}{7}$

$7(x+4) = 9(x+4)$

$7x + 28 = 9x + 36$

$7x - 9x = -28 + 36$

$-2x = 8$

$-2x \div (-2) = 8 \div (-2)$

$x = -4$

④ $2x - \frac{4x+3}{3} = 1$

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

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

$6x - (4x+3) = 3$

$6x - 4x - 3 = 3$

$2x - 3 = 3$

$2x = 3 + 3$

$2x = 6$

$2x \div 2 = 6 \div 2$
 $x = 3$

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

$10\left\{\frac{x+6}{5} - \frac{3x-2}{2}\right\} = 10 \times (-2)$

$2(x+6) + 10 \times \left\{-\frac{3x-2}{2}\right\} = -20$

$2(x+6) - 5(3x-2) = -20$

$2x + 12 - 15x + 10 = -20$

$-13x + 22 = -20$

$-13x = -20 - 22$

$-13x = -42$

$-13x \div (-13) = -42 \div (-13)$
 $x = \frac{42}{13}$

⑥ $\frac{x+1}{2} - \frac{9x-5}{10} = 2$

$10\left\{\frac{x+1}{2} - \frac{9x-5}{10}\right\} = 10 \times 2$

$5(x+1) + 10 \times \left\{-\frac{9x-5}{10}\right\} = 20$

$5(x+1) - (9x-5) = 20$

$5x + 5 - 9x + 5 = 20$

$-4x + 10 = 20$

$-4x = 20 - 10$

$-4x = 10$

$-4x \div (-4) = 10 \div (-4)$
 $x = -\frac{10}{4}$
 $x = -\frac{5}{2}$