

数学科 方程式マスター H-②

( )組( )番 名前( )

次の方程式を解きなさい。

①  $\frac{1}{2}x + \frac{1}{5}(4x - 14) = 5$

④  $x - \frac{x-3}{8} = 1$

②  $\frac{x}{25} + \frac{21-x}{90} = \frac{2}{3}$

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

③  $\frac{x-4}{2} = \frac{x+1}{9}$

⑥  $\frac{4x+3}{5} - \frac{21x+3}{20} = 2$

次の方程式を解きなさい。

①  $\frac{1}{2}x + \frac{1}{5}(4x-14) = 5$

$10\left\{\frac{1}{2}x + \frac{1}{5}(4x-14)\right\} = 10 \times 5$

$5 \times \frac{1}{2}x + 2 \times \frac{1}{5}(4x-14) = 50$

$5x + 2(4x-14) = 50$

$5x + 8x - 28 = 50$

$13x - 28 = 50$

$13x = 50 + 28 \rightarrow 13x \div 13 = 78 \div 13$

$13x = 78$   
 $x = 6$

②  $\frac{x}{25} + \frac{(21-x)}{90} = \frac{2}{3}$

$450\left\{\frac{x}{25} + \frac{(21-x)}{90}\right\} = 450 \times \frac{2}{3}$

$18x + 5(21-x) = 300$

$18x + 105 - 5x = 300$

$13x + 105 = 300$

$13x = 300 - 105$

$13x = 195$   
 $13x \div 13 = 195 \div 13$   
 $x = 15$

③  $\frac{(x-4)}{2} = \frac{(x+1)}{9}$

$18 \times \frac{(x-4)}{2} = 18 \times \frac{(x+1)}{9}$

$9(x-4) = 2(x+1)$

$9x - 36 = 2x + 2$

$9x - 2x = 36 + 2$

$7x = 38$

$7x \div 7 = 38 \div 7$

$x = \frac{38}{7}$

④  $x - \frac{(x-3)}{8} = 1$

$8\left\{x - \frac{(x-3)}{8}\right\} = 8 \times 1$

$8x + 8 \times \left\{-\frac{(x-3)}{8}\right\} = 8$

$8x - (x-3) = 8$

$8x - x + 3 = 8$

$7x + 3 = 8$

$7x = 8 - 3$

$7x = 5$

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

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

$20\left\{\frac{(5x+5)}{4} - \frac{(3x-6)}{5}\right\} = 20 \times (-1)$

$5(5x+5) - 4(3x-6) = -20$

$25x + 25 - 12x + 24 = -20$

$13x + 49 = -20$

$13x = -20 - 49$

$13x = -69$

$13x \div 13 = -69 \div 13$   
 $x = -\frac{69}{13}$

⑥  $\frac{(4x+3)}{5} - \frac{(21x+3)}{20} = 2$

$20\left\{\frac{(4x+3)}{5} - \frac{(21x+3)}{20}\right\} = 20 \times 2$

$4(4x+3) - (21x+3) = 40$

$16x + 12 - 21x - 3 = 40$

$-5x + 9 = 40$

$-5x = 40 - 9$

$-5x = 31$

$-5x \div (-5) = 31 \div (-5)$   
 $x = -\frac{31}{5}$