



一元一次方程式の解き方

名前

得点

/20

1. 次の方程式を解きなさい。

(1) $x - 3 = 1$

(2) $x + 2 = 9$

(3) $4x = -8$

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

(5) $2x = x - 4$

(6) $7x - 9 = 5$

(7) $3x = x - 6$

(8) $8x + 5 = 7x - 2$

(9) $x - 3 = -4x + 7$

(10) $2x - 5 = 4x + 1$

(11) $3x - 8 = 7x + 8$

(12) $5x + 7 = -3x - 9$

(13) $9x - 2 = 3x + 4$

(14) $3(x - 2) = 2x - 1$

(15) $2(x + 1) + 7 = 5(x + 3)$

(16) $300x - 700 = 400x - 100$

(17) $40x - 350 = 180x + 70$

(18) $\frac{5}{6}x - \frac{9}{2} = -\frac{7}{4}x + \frac{2}{3}$

(19) $\frac{x-7}{5} = 0.3x - 1.6$

(20) $0.8x - 1.59 = 0.2x + 0.81$

解答・解説

1. 一元一次方程式 ★両辺に同じ数を足したり掛けたりして、 $x = (\text{数})$ の形にする。

$$\begin{aligned}(1) \quad x - 3 &= 1 \\ x - 3 + 3 &= 1 + 3 \\ \underline{x} &= \underline{4}\end{aligned}$$

$$\begin{aligned}(2) \quad x + 2 &= 9 \\ x + 2 + (-2) &= 9 + (-2) \\ \underline{x} &= \underline{7}\end{aligned}$$

$$\begin{aligned}(3) \quad 4x &= -8 \\ 4x \times \frac{1}{4} &= (-8) \times \frac{1}{4} \\ \underline{x} &= \underline{-2}\end{aligned}$$

$$\begin{aligned}(4) \quad \frac{2}{3}x &= 6 \\ \frac{2}{3}x \times \frac{3}{2} &= 6 \times \frac{3}{2} \\ \underline{x} &= \underline{9}\end{aligned}$$

$$\begin{aligned}(5) \quad 2x &= x - 4 \\ 2x + (-x) &= x - 4 + (-x) \\ \underline{x} &= \underline{-4}\end{aligned}$$

$$\begin{aligned}(6) \quad 7x - 9 &= 5 \\ 7x - 9 + 9 &= 5 + 9 \\ 7x &= 14 \\ \underline{x} &= \underline{2}\end{aligned}$$

$$\begin{aligned}(7) \quad 3x &= x - 6 \\ 2x &= -6 \\ \underline{x} &= \underline{-3}\end{aligned}$$

$$\begin{aligned}(8) \quad 8x + 5 &= 7x - 2 \\ x + 5 &= -2 \\ \underline{x} &= \underline{-7}\end{aligned}$$

$$\begin{aligned}(9) \quad x - 3 &= -4x + 7 \\ 5x &= 10 \\ \underline{x} &= \underline{2}\end{aligned}$$

$$\begin{aligned}(10) \quad 2x - 5 &= 4x + 1 \\ -2x &= 6 \\ \underline{x} &= \underline{-3}\end{aligned}$$

$$\begin{aligned}(11) \quad 3x - 8 &= 7x + 8 \\ -4x &= 16 \\ \underline{x} &= \underline{-4}\end{aligned}$$

$$\begin{aligned}(12) \quad 5x + 7 &= -3x - 9 \\ 8x &= -16 \\ \underline{x} &= \underline{-2}\end{aligned}$$

$$\begin{aligned}(13) \quad 9x - 2 &= 3x + 4 \\ 6x &= 6 \\ \underline{x} &= \underline{1}\end{aligned}$$

$$\begin{aligned}(14) \quad 3(x - 2) &= 2x - 1 \\ 3x - 6 &= 2x - 1 \\ \underline{x} &= \underline{5}\end{aligned}$$

$$\begin{aligned}(15) \quad 2(x + 1) + 7 &= 5(x + 3) \\ 2x + 9 &= 5x + 15 \\ -3x &= 6 \\ \underline{x} &= \underline{-2}\end{aligned}$$

$$\begin{aligned}(16) \quad 300x - 700 &= 400x - 100 \\ 3x - 7 &= 4x - 1 \\ -x &= 6 \\ \underline{x} &= \underline{-6}\end{aligned}$$

$$\begin{aligned}(17) \quad 40x - 350 &= 180x + 70 \\ 4x - 35 &= 18x + 7 \\ -14x &= 42 \\ \underline{x} &= \underline{-3}\end{aligned}$$

$$\begin{aligned}(18) \quad \frac{5}{6}x - \frac{9}{2} &= -\frac{7}{4}x + \frac{2}{3} \\ 10x - 54 &= -21x + 8 \\ 31x &= 62 \\ \underline{x} &= \underline{2}\end{aligned}$$

$$\begin{aligned}(19) \quad \frac{x - 7}{5} &= 0.3x - 1.6 \\ 2(x - 7) &= 3x - 16 \\ -x &= -2 \\ \underline{x} &= \underline{2}\end{aligned}$$

$$\begin{aligned}(20) \quad 0.8x - 1.59 &= 0.2x + 0.81 \\ 80x - 159 &= 20x + 81 \\ 60x &= 240 \\ \underline{x} &= \underline{4}\end{aligned}$$

★等式の両辺には同じ操作をしないといけない。「左辺には 3 を足したのに右辺には -3 を足している」とか「1 つ目の項には 10 を掛けているのに 2 つ目の項には 100 を掛けている」とかということがないように注意する。