

年 月 日

名前

1. 次の計算をなさい。

$$(1) (-2) + (-7) = \boxed{} \quad (2) -3 - 4 = \boxed{}$$

$$(3) (+5) \times (-7) = \boxed{} \quad (4) (+6) \times 4 = \boxed{}$$

$$(5) (+4) + (-9) = \boxed{} \quad (6) 2 - 8 = \boxed{}$$

$$(7) (-6) \times (-7) = \boxed{} \quad (8) -2 \times (+9) = \boxed{}$$

$$(9) (+7) + (+8) = \boxed{} \quad (10) 4 - 12 = \boxed{}$$

$$(11) (+10) \div (-5) = \boxed{} \quad (12) (-10) \div (+2) = \boxed{}$$

$$(13) 3 - (-9) = \boxed{} \quad (14) -3 + 10 = \boxed{}$$

$$(15) (-8) \div (-4) = \boxed{} \quad (16) (+6) \div 2 = \boxed{}$$

$$(17) (-9) + (-3) = \boxed{} \quad (18) -9 - 8 = \boxed{}$$

$$(19) (+9) \div (-3) = \boxed{} \quad (20) (-5) \div (-5) = \boxed{}$$

2. 次の計算をなさい。

$$(1) (-1) + (-5) = \boxed{} \quad (2) -1 - 7 = \boxed{}$$

$$(3) (+6) \times (-8) = \boxed{} \quad (4) (+7) \times 5 = \boxed{}$$

$$(5) (+5) + (-8) = \boxed{} \quad (6) 5 - 9 = \boxed{}$$

$$(7) (-5) \times (-9) = \boxed{} \quad (8) -3 \times (+7) = \boxed{}$$

$$(9) (+3) + (+9) = \boxed{} \quad (10) 3 + 10 = \boxed{}$$

$$(11) (+8) \div (-4) = \boxed{} \quad (12) (-8) \div (+2) = \boxed{}$$

$$(13) 3 - 7 = \boxed{} \quad (14) -3 + 7 = \boxed{}$$

$$(15) (-8) \div (-1) = \boxed{} \quad (16) (+4) \div 2 = \boxed{}$$

$$(17) (-9) + (-5) = \boxed{} \quad (18) -9 - 5 = \boxed{}$$

$$(19) (+6) \div (-2) = \boxed{} \quad (20) (-6) \div (-6) = \boxed{}$$

3. 次の方程式を 解きなさい。

(1) $2x = 8$

(2) $x + 9 = 4$

(3) $x + 4 = 12$

(4) $y - 7 = 6$

(5) $4x = 6$

(6) $2x = -16$

(7) $-6x = 3$

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

4. 次の方程式を 解きなさい。

(1) $4x = -2x + 18$

(2) $7x = 5x - 6$

(3) $4x - 7 = -15$

(4) $1 - 2x = 11$

(5) $9x = 4 - 7x$

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

5. 次の方程式を 解きなさい。

(1) $9x - 5 = 2x + 23$

(2) $5x + 8 = 2x - 4$

(3) $2x + 7 = 19 - 4x$

(4) $9 - x = 2 + 6x$

(5) $8x - 10 = 9x - 4$

(6) $2 + 10x = 4x - 1$

6. 次の方程式を 解きなさい。

(1) $1 + 2(x - 4) = 3$

(2) $4(3x + 4) + 1 = -7$

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

(4) $7x + 9 = 3(x - 1)$

1. 次の計算をなさい。

$$(1) (-2) + (-7) = \boxed{-9} \quad (2) -3 - 4 = \boxed{-7}$$

$$(3) (+5) \times (-7) = \boxed{-35} \quad (4) (+6) \times 4 = \boxed{24}$$

$$(5) (+4) + (-9) = \boxed{-5} \quad (6) 2 - 8 = \boxed{-6}$$

$$(7) (-6) \times (-7) = \boxed{42} \quad (8) -2 \times (+9) = \boxed{-18}$$

$$(9) (+7) + (+8) = \boxed{15} \quad (10) 4 - 12 = \boxed{-8}$$

$$(11) (+10) \div (-5) = \boxed{-2} \quad (12) (-10) \div (+2) = \boxed{-5}$$

$$(13) 3 - (-9) = \boxed{12} \quad (14) -3 + 10 = \boxed{7}$$

$$(15) (-8) \div (-4) = \boxed{2} \quad (16) (+6) \div 2 = \boxed{3}$$

$$(17) (-9) + (-3) = \boxed{-12} \quad (18) -9 - 8 = \boxed{-17}$$

$$(19) (+9) \div (-3) = \boxed{-3} \quad (20) (-5) \div (-5) = \boxed{1}$$

2. 次の計算をなさい。

$$(1) (-1) + (-5) = \boxed{-6} \quad (2) -1 - 7 = \boxed{-8}$$

$$(3) (+6) \times (-8) = \boxed{-48} \quad (4) (+7) \times 5 = \boxed{35}$$

$$(5) (+5) + (-8) = \boxed{-3} \quad (6) 5 - 9 = \boxed{-4}$$

$$(7) (-5) \times (-9) = \boxed{45} \quad (8) -3 \times (+7) = \boxed{-21}$$

$$(9) (+3) + (+9) = \boxed{12} \quad (10) 3 + 10 = \boxed{13}$$

$$(11) (+8) \div (-4) = \boxed{-2} \quad (12) (-8) \div (+2) = \boxed{-4}$$

$$(13) 3 - 7 = \boxed{-4} \quad (14) -3 + 7 = \boxed{4}$$

$$(15) (-8) \div (-1) = \boxed{8} \quad (16) (+4) \div 2 = \boxed{2}$$

$$(17) (-9) + (-5) = \boxed{-14} \quad (18) -9 - 5 = \boxed{-14}$$

$$(19) (+6) \div (-2) = \boxed{-3} \quad (20) (-6) \div (-6) = \boxed{1}$$

3. 次の方程式を 解きなさい。

(1) $2x = 8$

$$2x = 8$$

$$\frac{2x}{2} = \frac{8}{2}$$

$$x = 4$$

$$\text{左辺} = 2 \times 4$$

$$= 8$$

$$\text{右辺} = 8$$

(2) $x + 9 = 4$

$$x + 9 = 4$$

$$x + 9 - 9 = 4 - 9$$

$$x = 4 - 9$$

$$x = -5$$

$$\text{左辺} = -5 + 9$$

$$= 4$$

$$\text{右辺} = 4$$

(3) $x + 4 = 12$

$$x + 4 = 12$$

$$x + 4 - 4 = 12 - 4$$

$$x = 12 - 4$$

$$x = 8$$

$$\text{左辺} = 8 + 4$$

$$= 12$$

$$\text{右辺} = 12$$

(4) $y - 7 = 6$

$$y - 7 = 6$$

$$y - 7 + 7 = 6 + 7$$

$$y = 6 + 7$$

$$y = 13$$

$$\text{左辺} = 13 - 7$$

$$= 6$$

$$\text{右辺} = 6$$

$$(5) \quad 4x = 6$$

$$4x = 6$$

$$\frac{4x}{4} = \frac{6}{4}$$

$$x = \frac{3}{2}$$

$$\text{左辺} = 4 \times \frac{3}{2}$$

$$= 6$$

$$\text{右辺} = 6$$

$$(6) \quad 2x = -16$$

$$2x = -16$$

$$\frac{2x}{2} = \frac{-16}{2}$$

$$x = -8$$

$$\text{左辺} = 2 \times (-8)$$

$$= -16$$

$$\text{右辺} = -16$$

$$(7) \quad -6x = 3$$

$$-6x = 3$$

$$\frac{-6x}{-6} = \frac{3}{-6}$$

$$x = -\frac{1}{2}$$

$$\text{左辺} = -6 \times \left(-\frac{1}{2}\right)$$

$$= 3$$

$$\text{右辺} = 3$$

$$(8) \quad \frac{1}{4}x = 5$$

$$\frac{1}{4}x = 5$$

$$4 \times \frac{1}{4}x = 4 \times 5$$

$$x = 20$$

$$\text{左辺} = \frac{1}{4} \times 20$$

$$= 5$$

$$\text{右辺} = 5$$

4. 次の方程式を 解きなさい。

(1)

$$\begin{aligned}
 4x &= -2x + 18 \\
 4x + 2x &= -2x + 18 + 2x \\
 4x + 2x &= 18 \\
 6x &= 18 \\
 \frac{6x}{6} &= \frac{18}{6} \\
 x &= 3
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 4 \times 3 \\
 &= 12 \\
 \text{右辺} &= -2 \times 3 + 18 \\
 &= -6 + 18 \\
 &= 12
 \end{aligned}$$

(2)

$$\begin{aligned}
 7x &= 5x - 6 \\
 7x - 5x &= 5x - 6 - 5x \\
 7x - 5x &= -6 \\
 2x &= -6 \\
 \frac{2x}{2} &= \frac{-6}{2} \\
 x &= -3
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 7 \times (-3) \\
 &= -21 \\
 \text{右辺} &= 5 \times (-3) - 6 \\
 &= -15 - 6 \\
 &= -21
 \end{aligned}$$

(3)

$$\begin{aligned}
 4x - 7 &= -15 \\
 4x - 7 + 7 &= -15 + 7 \\
 4x &= -8 \\
 \frac{4x}{4} &= \frac{-8}{4} \\
 x &= -2
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 4 \times (-2) - 7 \\
 &= -8 - 7 \\
 &= -15 \\
 \text{右辺} &= -15
 \end{aligned}$$

(4)

$$\begin{aligned}
 1 - 2x &= 11 \\
 1 - 2x - 1 &= 11 - 1 \\
 -2x &= 10 \\
 \frac{-2x}{-2} &= \frac{10}{-2} \\
 x &= -5
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 1 - 2 \times (-5) \\
 &= 1 + 10 \\
 &= 11 \\
 \text{右辺} &= 11
 \end{aligned}$$

(5)

$$\begin{aligned}
 9x &= 4 - 7x \\
 9x + 7x &= 4 - 7x + 7x \\
 16x &= 4 \\
 \frac{16x}{16} &= \frac{4}{16} \\
 x &= \frac{1}{4}
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 9 \times \frac{1}{4} \\
 &= \frac{9}{4} \\
 \text{右辺} &= 4 - 7 \times \frac{1}{4} \\
 &= \frac{16}{4} - \frac{7}{4} \\
 &= \frac{9}{4}
 \end{aligned}$$

5. 次の方程式を 解きなさい。

(1)

$$\begin{aligned}
 9x - 5 &= 2x + 23 \\
 9x - 5 - 2x + 5 &= 2x + 23 - 2x + 5 \\
 9x - 2x &= 23 + 5 \\
 7x &= 28 \\
 \frac{7x}{7} &= \frac{28}{7} \\
 x &= 4
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 9 \times 4 - 5 \\
 &= 36 - 5 \\
 &= 31 \\
 \text{右辺} &= 2 \times 4 + 23 \\
 &= 8 + 23 \\
 &= 31
 \end{aligned}$$

(6)

$$\begin{aligned}
 -2x &= 3 - x \\
 -2x + x &= 3 - x + x \\
 -x &= 3 \\
 \frac{-x}{-1} &= \frac{3}{-1} \\
 x &= -3
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= -2 \times (-3) \\
 &= 6 \\
 \text{右辺} &= 3 - (-3) \\
 &= 3 + 3 \\
 &= 6
 \end{aligned}$$

(2)

$$\begin{aligned}
 5x + 8 &= 2x - 4 \\
 5x + 8 - 2x - 8 &= 2x - 4 - 2x - 8 \\
 5x - 2x &= -4 - 8 \\
 3x &= -12 \\
 \frac{3x}{3} &= \frac{-12}{3} \\
 x &= -4
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 5 \times (-4) + 8 \\
 &= -20 + 8 \\
 &= -12 \\
 \text{右辺} &= 2 \times (-4) - 4 \\
 &= -8 - 4 \\
 &= -12
 \end{aligned}$$

(3)

$$\begin{aligned}
2x + 7 &= 19 - 4x \\
2x + 7 + 4x - 7 &= 19 - 4x + 4x - 7 \\
2x + 4x &= 19 - 7 \\
6x &= 12 \\
\frac{6x}{6} &= \frac{12}{6} \\
x &= 2
\end{aligned}$$

$$\begin{aligned}
\text{左辺} &= 2 \times 2 + 7 \\
&= 4 + 7 \\
&= 11 \\
\text{右辺} &= 19 - 4 \times 2 \\
&= 19 - 8 \\
&= 11
\end{aligned}$$

(4)

$$\begin{aligned}
9 - x &= 2 + 6x \\
9 - x - 6x - 9 &= 2 + 6x - 6x - 9 \\
-x - 6x &= 2 - 9 \\
-7x &= -7 \\
\frac{-7x}{-7} &= \frac{-7}{-7} \\
x &= 1
\end{aligned}$$

$$\begin{aligned}
\text{左辺} &= 9 - 1 \\
&= 8 \\
\text{右辺} &= 2 + 6 \times 1 \\
&= 2 + 6 \\
&= 8
\end{aligned}$$

(5)

$$\begin{aligned}
8x - 10 &= 9x - 4 \\
8x - 10 - 9x + 10 &= 9x - 4 - 9x + 10 \\
8x - 9x &= -4 + 10 \\
-x &= 6 \\
\frac{-x}{-1} &= \frac{6}{-1} \\
x &= -6
\end{aligned}$$

$$\begin{aligned}
\text{左辺} &= 8 \times (-6) - 10 \\
&= -48 - 10 \\
&= -58 \\
\text{右辺} &= 9 \times (-6) - 4 \\
&= -54 - 4 \\
&= -58
\end{aligned}$$

(6)

$$\begin{aligned}
2 + 10x &= 4x - 1 \\
2 + 10x - 4x - 2 &= 4x - 1 - 4x - 2 \\
10x - 4x &= -1 - 2 \\
6x &= -3 \\
\frac{6x}{6} &= \frac{-3}{6} \\
x &= -\frac{1}{2}
\end{aligned}$$

$$\begin{aligned}
\text{左辺} &= 2 + 10 \times \left(-\frac{1}{2}\right) \\
&= 2 - 5 \\
&= -3 \\
\text{右辺} &= 4 \times \left(-\frac{1}{2}\right) - 1 \\
&= -2 - 1 \\
&= -3
\end{aligned}$$

6. 次の方程式を 解きなさい。

(1)

$$\begin{aligned}
 1 + 2(x - 4) &= 3 \\
 1 + 2x - 8 &= 3 \\
 1 + 2x - 8 - 1 + 8 &= 3 - 1 + 8 \\
 2x &= 3 - 1 + 8 \\
 2x &= 10 \\
 x &= 5
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 1 + 2(5 - 4) \\
 &= 1 + 2 \times 1 \\
 &= 1 + 2 \\
 &= 3 \\
 \text{右辺} &= 3
 \end{aligned}$$

(3)

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

$$\begin{aligned}
 \text{左辺} &= 2 \times 2 - 3(2 - 2) \\
 &= 4 - 3 \times 0 \\
 &= 4 - 0 \\
 &= 4 \\
 \text{右辺} &= 4
 \end{aligned}$$

(2)

$$\begin{aligned}
 4(3x + 4) + 1 &= -7 \\
 12x + 16 + 1 &= -7 \\
 12x + 16 + 1 - 16 - 1 &= -7 - 16 - 1 \\
 12x &= -7 - 16 - 1 \\
 12x &= -24 \\
 x &= -2
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 4(3 \times (-2) + 4) + 1 \\
 &= 4(-6 + 4) + 1 \\
 &= 4 \times (-2) + 1 \\
 &= -8 + 1 \\
 &= -7 \\
 \text{右辺} &= -7
 \end{aligned}$$

(4)

$$\begin{aligned}
 7x + 9 &= 3(x - 1) \\
 7x + 9 &= 3x - 3 \\
 7x + 9 - 3x - 9 &= 3x - 3 - 3x - 9 \\
 7x - 3x &= -3 - 9 \\
 4x &= -12 \\
 x &= -3
 \end{aligned}$$

$$\begin{aligned}
 \text{左辺} &= 7 \times (-3) + 9 \\
 &= -21 + 9 \\
 &= -12 \\
 \text{右辺} &= 3(-3 - 1) \\
 &= 3 \times (-4) \\
 &= -12
 \end{aligned}$$