

平成 20 年度 第 2 学期 中間考査 中学部 2 年 (2) 氏名

1. 次の計算をなさい。

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

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

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

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

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

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

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

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

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

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

2. 次の方程式を 解きなさい。

(1) $2x = 8$

(2) $x + 9 = 4$

(3) $x + 4 = 12$

(4) $y - 7 = 6$

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

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

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

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

$$(9) \quad 4x = -2x + 18$$

$$(10) \quad 7x = 5x - 6$$

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) $10 + x = 7$

$$10 + x = 7$$

$$10 + x - 10 = 7 - 10$$

$$x = 7 - 10$$

$$x = -3$$

$$\text{左辺} = 10 + (-3)$$

$$= 7$$

$$\text{右辺} = 7$$

(5) $y - 7 = 6$

$$y - 7 = 6$$

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

$$y = 6 + 7$$

$$y = 13$$

$$\text{左辺} = 13 - 7$$

$$= 6$$

$$\text{右辺} = 6$$

(6) $4x = 6$

$$4x = 6$$

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

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

$$\text{左辺} = 4 \times \frac{3}{2}$$

$$= 6$$

$$\text{右辺} = 6$$

$$(7) \quad 2x = -16$$

$$2x = -16$$

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

$$x = -8$$

$$\text{左边} = 2 \times (-8)$$

$$= -16$$

$$\text{右边} = -16$$

$$(8) \quad -6x = 3$$

$$-6x = 3$$

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

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

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

$$= 3$$

$$\text{右边} = 3$$

$$(9) \quad \frac{1}{4}x = 5$$

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

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

$$x = 20$$

$$\text{左边} = \frac{1}{4} \times 20$$

$$= 5$$

$$\text{右边} = 5$$

$$(10) \quad x - 3 = 11$$

$$x - 3 = 11$$

$$x - 3 + 3 = 11 + 3$$

$$x = 11 + 3$$

$$x = 14$$

$$\text{左边} = 14 - 3$$

$$= 11$$

$$\text{右边} = 11$$

$$(11) \quad 4x = -2x + 18$$

$$4x = -2x + 18$$

$$4x + 2x = -2x + 18 + 2x$$

$$4x + 2x = 18$$

$$6x = 18$$

$$\frac{6x}{6} = \frac{18}{6}$$

$$x = 3$$

$$\text{左边} = 4 \times 3$$

$$= 12$$

$$\text{右边} = -2 \times 3 + 18$$

$$= -6 + 18$$

$$= 12$$

$$(12) \quad x + 6 = 9$$

$$x + 6 = 9$$

$$x + 6 - 6 = 9 - 6$$

$$x = 9 - 6$$

$$x = 3$$

$$\text{左边} = 3 + 6$$

$$= 9$$

$$\text{右边} = 9$$

$$(13) \quad 7x = 5x - 6$$

$$(14) \quad 4x - 7 = -15$$

$$7x = 5x - 6$$

$$7x - 5x = 5x - 6 - 5x$$

$$7x - 5x = -6$$

$$2x = -6$$

$$\frac{2x}{2} = \frac{-6}{2}$$

$$x = -3$$

$$\text{左辺} = 7 \times (-3)$$

$$= -21$$

$$\text{右辺} = 5 \times (-3) - 6$$

$$= -15 - 6$$

$$= -21$$

$$(15) \quad 1 - 2x = 11$$

$$(16) \quad 9x = 4 - 7x$$

$$(17) \quad -2x = 3 - x$$

$$(18) \quad 9x - 5 = 2x + 23$$

$$(19) \quad 5x + 8 = 2x - 4$$

$$(20) \quad 2x + 7 = 19 - 4x$$

$$(21) \quad 9 - x = 2 + 6x$$

$$(22) \quad 8x - 10 = 9x - 4$$

$$(23) \quad 2 + 10x = 4x - 1$$

$$(24) \quad -7x + 1 = -x + 7$$

$$(25) \quad 1 + 2(x - 4) = 3$$

$$(26) \quad 4(3x + 4) + 1 = -7$$

$$(27) \quad 2x - 3(2 - x) = 4$$

$$(28) \quad 7x + 9 = 3(x - 1)$$

(29)

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

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

(31)

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

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

(30)

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

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

(32)

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

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