

文字と式 [1次式の加法と減法]

<演習問題>

次の計算をせよ。

(1) $3a + 4 + 2a$

(2) $a - 4 - 3a + 2$

(3) $3x + 2 - 5x - 7$

(4) $4x - 1 + x - 1$

(5) $(2x + 1) + (4x + 2)$

(6) $(x + 1) + (-2x + 1)$

(7) $(3x + 1) + (-5x + 9)$

(8) $(-x + 4) + (-2x - 1)$

(9) $(9x + 1) + (2x - 7)$

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

(11) $(-3x + 2) + (-8x - 10)$

(12) $(3x + 6) - (2x + 1)$

(13) $(x + 6) - (7x + 9)$

(14) $(2x + 4) - (-8x - 4)$

(15) $(-x + 1) - (x + 2)$

(16) $(-3x + 7) - (-5x + 6)$

(17) $(-2x + 1) - (9x - 10)$

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次の計算をせよ。

(1) $3a + 4 + 2a$

$$\begin{aligned} 3a + 4 + 2a &= (3 + 2)a + 4 \\ &= 5a + 4 \end{aligned}$$

(2) $a - 4 - 3a + 2$

$$\begin{aligned} a - 4 - 3a + 2 &= (1 - 3)a - 4 + 2 \\ &= -2a - 2 \end{aligned}$$

(3) $3x + 2 - 5x - 7$

$$\begin{aligned} 3x + 2 - 5x - 7 &= (3 - 5)x + 2 - 7 \\ &= -2x - 5 \end{aligned}$$

(4) $4x - 1 + x - 1$

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

(5) $(2x + 1) + (4x + 2)$

$$\begin{aligned} (2x + 1) + (4x + 2) &= 2x + 1 + 4x + 2 \\ &= 2x + 4x + 1 + 2 \\ &= 6x + 3 \end{aligned}$$

(6) $(x + 1) + (-2x + 1)$

$$\begin{aligned} (x + 1) + (-2x + 1) &= x + 1 - 2x + 1 \\ &= x - 2x + 1 + 1 \\ &= -x + 2 \end{aligned}$$

(7) $(3x + 1) + (-5x + 9)$

$$\begin{aligned} (3x + 1) + (-5x + 9) &= 3x + 1 - 5x + 9 \\ &= 3x - 5x + 1 + 9 \\ &= -2x + 10 \end{aligned}$$

(8) $(-x + 4) + (-2x - 1)$

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

(9) $(9x + 1) + (2x - 7)$

$$\begin{aligned} (9x + 1) + (2x - 7) &= 9x + 1 + 2x - 7 \\ &= 9x + 2x + 1 - 7 \\ &= 11x - 6 \end{aligned}$$

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

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

(11) $(-3x + 2) + (-8x - 10)$

$$\begin{aligned} (-3x + 2) + (-8x - 10) &= -3x + 2 - 8x - 10 \\ &= -3x - 8x + 2 - 10 \\ &= -11x - 8 \end{aligned}$$

(12) $(3x + 6) - (2x + 1)$

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

(13) $(x + 6) - (7x + 9)$

$$\begin{aligned} (x + 6) - (7x + 9) &= x + 6 - 7x - 9 \\ &= x - 7x + 6 - 9 \\ &= -6x - 3 \end{aligned}$$

(14) $(2x + 4) - (-8x - 4)$

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

(15) $(-x + 1) - (x + 2)$

$$\begin{aligned} (-x + 1) - (x + 2) &= -x + 1 - x - 2 \\ &= -x - x + 1 - 2 \\ &= -2x - 1 \end{aligned}$$

(16) $(-3x + 7) - (-5x + 6)$

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

(17) $(-2x + 1) - (9x - 10)$

$$\begin{aligned} (-2x + 1) - (9x - 10) &= -2x + 1 - 9x + 10 \\ &= -2x - 9x + 1 + 10 \\ &= -11x + 11 \end{aligned}$$