

P31.32 1章の章末問題 (宿題として25分程度)

1.

$$(1) -3x^2 - 4x + 5x + x^2 \\ = -2x^2 + x$$

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

$$(3) 3m - 4n + (-2m + n) \\ = 3m - 4n - 2m + n \\ = m - 3n$$

$$(4) 5x - 6y - (x - 3y) \\ = 5x - 6y - x + 3y \\ = 4x - 3y$$

$$(5) (-3x + y) - (-y + 2x) \\ = -3x + y + y - 2x \\ = -5x + 2y$$

$$(6) m - 10n - 6(2m - n) \\ = m - 10n - 12m + 6n \\ = -11m - 4n$$

$$(7) 3(x + 3y) + (7x - y) \\ = 3x + 9y + 7x - y \\ = 10x + 8y$$

$$(8) 4(3x - y) - 2(6x - y) \\ = 12x - 4y - 12x + 2y \\ = -2y$$

$$(9) 2(-x + y) + 7(x + y - 1) \\ = -2x + 2y + 7x + 7y - 7 \\ = 5x + 9y - 7$$

$$(10) 4(2x - 3y - 3) - 5(2x - y - 3) \\ = 8x - 12y - 12 - 10x + 5y + 15 \\ = -2x - 7y + 3$$

2.

$$(1) 0.7x + y - (-1.4x + y) \\ = 0.7x + y + 1.4x - y \\ = 2.1x$$

$$(2) 2(1.5x - y) + (-2x + 1.5y) \\ = 3x - 2y - 2x + 1.5y \\ = x - 0.5y$$

$$(3) \frac{1}{3}(2x + y) - \frac{1}{6}(4x + y) \\ = \frac{2}{3}x + \frac{1}{3}y - \frac{2}{3}x - \frac{1}{6}y \\ = \frac{1}{6}y$$

$$(4) \frac{5x - 3y}{2} - \frac{8x - 4y}{3} \\ = \frac{3(5x - 3y) - 2(8x - 4y)}{6} \\ = \frac{15x - 9y - 16x + 8y}{6} \\ = \frac{-x - y}{6}$$

(分子) 見えない()がある。

3.

$$(1) 3x \times (-4y) = -12xy$$

$$(2) (-2n) \times (-4n) = 8n^2$$

$$(3) (-a)^2 \times 2a = (-a) \times (-a) \times 2a \\ = 2a^3$$

$$(4) -\frac{3}{2}xy \times (2x)^2 \\ = -\frac{3}{2}xy \times 2x \times 2x$$

$$= -6x^3y$$

$$(5) (-6x^2) \div (-3x) = \frac{6x^2}{3x} = 2x$$

$$(6) 5x^2 \div \left(-\frac{10}{3}x\right)$$

$$= 5x^2 \times \left(-\frac{3}{10x}\right)$$

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

$$(7) 12ab \div (-4a^2) \times 2ab$$

$$= -\frac{12ab \times 2ab}{4a^2} = -6b^2$$

$$(8) (-xy) \times (-10xy^2) \div 5x^2$$

$$= \frac{xy \times 10xy^2}{5x^2} = 2y^3$$

$$(9) -x^2y \div 2x \div (-3y)$$

$$= \frac{x^2y}{2x \times 3y} = \frac{x}{6}$$

$$(10) \frac{2}{5}a^2 \div \frac{3}{10}b \times (-6ab)$$

$$= \frac{2}{5}a^2 \times \frac{10}{3b} \times (-6ab)$$

$$= -8a^3$$

4. 項に注目

$$(1) \quad 3x - 5y$$

$$+ \quad -3x + 8y$$

$$3y$$

$$(2) \quad 25x - 3y + 6$$

$$- \quad 5x - 10y - 6$$

$$20x + 7y + 12$$

5.

$$-2(6x - 2y) + 2(x + 3y) = -12x + 4y + 2x + 6y$$

$$= -10x + 10y \quad \text{式の計算}$$

$$= -8 + 14 = 6 \quad \text{代入}$$