

<単項式と多項式の乗法・除法>

☆分配法則を利用して計算しましょう。

$$1. (1) (2x+y) \times 7x = 14x^2 + 7xy$$

$$(2) (3a-b) \times 4a = 12a^2 - 4ab$$

$$(3) (5a-6b) \times (-2b) \\ = 5a \times (-2b) - 6b \times (-2b) \\ = -10ab + 12b^2$$

$$(4) 4x(2x-1) \\ = 4x \times 2x + 4x \times (-1) \\ = 8x^2 - 4x$$

$$(5) 2x(x+3y) \\ = 2x \times x + 2x \times 3y \\ = 2x^2 + 6xy$$

$$(6) -3a(8a+7b) \\ = -3a \times 8a - 3a \times 7b \\ = -24a^2 - 21ab$$

$$(7) -2x(-3x+2y) \\ = -2x \times (-3x) - 2x \times 2y \\ = 6x^2 - 4xy$$

$$(8) (x-3y-2) \times 4x \\ = x \times 4x - 3y \times 4x - 2 \times 4x \\ = 4x^2 - 12xy - 8x$$

$$(9) -3x(4x-3y+2) \\ = -3x \times 4x - 3x \times (-3y) - 3x \times 2 \\ = -12x^2 + 9xy - 6x$$

$$(10) 3a(-a+2b-1) \\ = 3a \times (-a) + 3a \times 2b + 3a \times (-1) \\ = -3a^2 + 6ab - 3a$$

$$2. (1) (5x^2-10x) \div 5x = x-2$$

$$(2) (8a^2-2a) \div 2a = 4a-1$$

$$(3) (6ax+3ax) \div (-3a) = -3x$$

$$(4) (-10x^2+x) \div \frac{x}{2} \\ = -10x^2 \times \frac{2}{x} + x \times \frac{2}{x} \\ = -20x + 2$$

$$(5) (3x^2+6xy) \div -\frac{3}{4}x \\ = 3x^2 \times \left(-\frac{4}{3x}\right) + 6xy \times \left(-\frac{4}{3x}\right) \\ = -4x - 8y$$

$$(6) (15x^2y-9xy^2) \div \frac{3}{2}xy \\ = 15x^2y \times \frac{2}{3xy} - 9xy^2 \times \frac{2}{3xy} \\ = 10x - 6y$$