

多項式の積の展開 解答と解説

1 解答 (1) $xy + 3x + y + 3$ (2) $xy + 4x - 2y - 8$ (3) $2ab - 2a + 3b - 3$
(4) $ac - ad - bc + bd$

$$(1) (x+1)(y+3) = x \times y + x \times 3 + 1 \times y + 1 \times 3 \\ = xy + 3x + y + 3$$

$$(2) (x-2)(y+4) = x \times y + x \times 4 - 2 \times y - 2 \times 4 \\ = xy + 4x - 2y - 8$$

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

$$(4) (a-b)(c-d) = a \times c + a \times (-d) - b \times c - b \times (-d) \\ = ac - ad - bc + bd$$

2 解答 (1) $x^2 + 5x + 6$ (2) $x^2 + 4x - 5$ (3) $2a^2 - 7a - 4$ (4) $-6a^2 + 13a - 6$

$$(1) (x+2)(x+3) = x^2 + 3x + 2x + 6 \\ = x^2 + 5x + 6$$

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

$$(3) (2a+1)(a-4) = 2a^2 - 8a + a - 4 \\ = 2a^2 - 7a - 4$$

$$(4) (3a-2)(-2a+3) = -6a^2 + 9a + 4a - 6 \\ = -6a^2 + 13a - 6$$