

因数分解① 解答と解説

- 1 解答 (1)  $2a(a+3)$  (2)  $3x(x-3y)$  (3)  $2ab(3b-4a)$  (4)  $2x(a-2b+2c)$   
 (5)  $3ax(x+2a-4)$

$$(1) \quad 2a^2 + 6a = 2a \times a + 2a \times 3 \\ = 2a(a+3)$$

$$(2) \quad 3x^2 - 9xy = 3x \times x - 3x \times 3y \\ = 3x(x-3y)$$

$$(3) \quad 6ab^2 - 8a^2b = 2ab \times 3b - 2ab \times 4a \\ = 2ab(3b-4a)$$

$$(4) \quad 2ax - 4bx + 4cx = 2x \times a - 2x \times 2b + 2x \times 2c \\ = 2x(a-2b+2c)$$

$$(5) \quad 3ax^2 + 6a^2x - 12ax = 3ax \times x + 3ax \times 2a - 3ax \times 4 \\ = 3ax(x+2a-4)$$

- 2 解答 (1)  $(x+3)(x+6)$  (2)  $(x+4)(x+9)$  (3)  $(x-1)(x-4)$   
 (4)  $(x-3)(x-7)$  (5)  $(x+1)(x-8)$  (6)  $(x-2)(x+6)$   
 (7)  $(x-2)(x+7)$  (8)  $(x-2)(x-10)$  (9)  $(x+2)(x+15)$   
 (10)  $(x-6)(x+18)$  (11)  $(a-3)(a-30)$  (12)  $(y-8)(y+12)$   
 (13)  $(z+3)(z+12)$  (14)  $(t+7)(t+11)$  (15)  $(p+2)(p-15)$   
 (16)  $(x-5)(x+10)$  (17)  $(x-5)(x-11)$  (18)  $(x-4)(x+14)$

$$(1) \quad x^2 + 9x + 18 = (x+3)(x+6)$$

$$(2) \quad x^2 + 13x + 36 = (x+4)(x+9)$$

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

$$(4) \quad x^2 - 10x + 21 = (x-3)(x-7)$$

$$(5) \quad x^2 - 7x - 8 = (x+1)(x-8)$$

$$(6) \quad x^2 + 4x - 12 = (x-2)(x+6)$$

$$(7) \quad x^2 + 5x - 14 = (x-2)(x+7)$$

$$(8) \quad x^2 - 12x + 20 = (x-2)(x-10)$$

$$(9) \quad x^2 + 17x + 30 = (x+2)(x+15)$$

$$(10) \quad x^2 + 12x - 108 = (x-6)(x+18)$$

$$(11) \quad a^2 - 33a + 90 = (a-3)(a-30)$$

$$(12) \quad y^2 + 4y - 96 = (y-8)(y+12)$$

$$(13) \quad z^2 + 15z + 36 = (z+3)(z+12)$$

$$(14) \quad t^2 + 18t + 77 = (t+7)(t+11)$$

$$(15) \quad p^2 - 13p - 30 = (p+2)(p-15)$$

$$(16) \quad x^2 + 5x - 50 = (x-5)(x+10)$$

$$(17) \quad x^2 - 16x + 55 = (x-5)(x-11)$$

$$(18) \quad x^2 + 10x - 56 = (x-4)(x+14)$$