

$$\begin{aligned} 1. (1) (a+b)(c-d) &= \\ &= ac - ad + bc - bd \end{aligned}$$

$$\begin{aligned} (2) (a-b)(c-d) &= \\ &= ac - ad - bc + bd \end{aligned}$$

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

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

$$\begin{aligned} 2. (1) (x-2)(x-6) &= \\ &= x^2 - 6x - 2x + 12 \\ &= x^2 - 8x + 12 \end{aligned}$$

$$\begin{aligned} (2) (x-4)(x+5) &= \\ &= x^2 + 5x - 4x - 20 \\ &= x^2 + x - 20 \end{aligned}$$

$$\begin{aligned} (3) (2a+1)(a+4) &= \\ &= 2a^2 + 8a + a + 4 \\ &= 2a^2 + 9a + 4 \end{aligned}$$

$$\begin{aligned} (4) (3x+5)(4x-7) &= \\ &= 12x^2 - 21x + 20x - 35 \\ &= 12x^2 - x - 35 \end{aligned}$$

$$\begin{aligned} 3. (1) (3a+2b)(2a+3b) &= \\ &= 6a^2 + 9ab + 4ab + 6b^2 \\ &= 6a^2 + 13ab + 6b^2 \end{aligned}$$

$$\begin{aligned} (2) (9a-2b)(5a+6b) &= \\ &= 45a^2 + 54ab - 10ab - 12b^2 \\ &= 45a^2 + 44ab - 12b^2 \end{aligned}$$

$$\begin{aligned} (3) (7x+4y)(x-5y) &= \\ &= 7x^2 - 35xy + 4xy - 20y^2 \\ &= 7x^2 - 31xy - 20y^2 \end{aligned}$$

$$\begin{aligned} (4) (2x-3y)(8x-y) &= \\ &= 16x^2 - 2xy - 24xy + 3y^2 \\ &= 16x^2 - 26xy + 3y^2 \end{aligned}$$

$$\begin{aligned} 4. (1) (a+1)(a+b-1) &= \\ &= a^2 + ab - a + a + b - 1 \\ &= a^2 + ab + b - 1 \end{aligned}$$

$$\begin{aligned} (2) (a+2b)(2a+b+1) &= \\ &= 2a^2 + ab + a + 4ab + 2b^2 + 2b \\ &= 2a^2 + 5ab + 2b^2 + a + 2b \end{aligned}$$

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

$$\begin{aligned} (4) (x-y+3)(3x-2y) &= \\ &= 3x^2 - 2xy - 3xy + 2y^2 + 9x - 6y \\ &= 3x^2 - 5xy + 2y^2 + 9x - 6y \end{aligned}$$