

氏名 () 点数 _____

$$\begin{aligned}(1) & (x-5)^2 - (x+2)(x-2) \\ & = x^2 - 2 \times 5 \times x + 5^2 - (x^2 - 2^2) \\ & = x^2 - 10x + 25 - (x^2 - 4) \\ & = x^2 - 10x + 25 - x^2 + 4 \\ & = \underline{-10x + 29}\end{aligned}$$

$$\begin{aligned}(2) & (x-4)(x+2) - (3x+1)(3x-3) \\ & = x^2 + (-4+2)x + (-4) \times 2 - \{(3x)^2 + (1-3)3x + 1 \times (-3)\} \\ & = x^2 - 2x - 8 - (9x^2 - 6x - 3) \\ & = x^2 - 2x - 8 - 9x^2 + 6x + 3 \\ & = \underline{-8x^2 + 4x - 5}\end{aligned}$$

$$\begin{aligned}(3) & 9(a-4)^2 - (3a-3)^2 \\ & = 9(a^2 - 2 \times 4 \times a + 4^2) - \{(3a)^2 - 2 \times 3 \times 3a + 3^2\} \\ & = 9(a^2 - 8a + 16) - (9a^2 - 18a + 9) \\ & = 9a^2 - 72a + 144 - 9a^2 + 18a - 9 \\ & = \underline{-54a + 135}\end{aligned}$$

$$\begin{aligned}(4) & (a-b-4)^2 \\ & \rightarrow a-b=A \text{ とおく} \\ & = (A-4)^2 \\ & = A^2 - 8A + 16 \\ & = (a-b)^2 - 8(a-b) + 16 \\ & = \underline{a^2 - 2ab + b^2 - 8a + 8b + 16}\end{aligned}$$

$$\begin{aligned}(5) & (x-y+2)(x-y-3) \\ & \rightarrow x-y=A \text{ とおく} \\ & = (A+2)(A-3) \\ & = A^2 + (2-3)A + 2 \times (-3) \\ & = A^2 - A - 6 \\ & = (x-y)^2 - (x-y) - 6 \\ & = \underline{x^2 - 2xy + y^2 - x + y - 6}\end{aligned}$$