

$$\begin{aligned} \text{1. (1)} \quad a(x-y) - b(y-x) &= a(x-y) + b(x-y) \\ &= (a+b)(x-y) \end{aligned} \quad (2 \text{ 点})$$

$$(2) \quad x^2 - 4xy + 4y^2 = (x-2y)^2 \quad (2 \text{ 点})$$

$$\begin{aligned} (3) \quad 9x^3y - 16xy^3 &= xy(9x^2 - 16y^2) \\ &= xy(3x+4y)(3x-4y) \end{aligned} \quad (2 \text{ 点})$$

$$(4) \quad 2x^2 - 3x + 1 = (2x-1)(x-1) \quad (2 \text{ 点})$$

$$(5) \quad 2x^2 + xy - 6y^2 = (2x-3y)(x+2y) \quad (2 \text{ 点})$$

$$\begin{aligned} (6) \quad (x-y)(x-y+5) + 6 &= (x-y)^2 + 5(x-y) + 6 \\ &= \{(x-y) + 2\}\{(x-y) + 3\} \\ &= (x-y+2)(x-y+3) \end{aligned} \quad (3 \text{ 点})$$

$$\begin{aligned} (7) \quad a^2 + b^2 + 2ab + bc + ca &= (a+b)c + (a^2 + 2ab + b^2) \\ &= (a+b)c + (a+b)^2 \\ &= (a+b)\{c + (a+b)\} \\ &= (a+b)(a+b+c) \end{aligned} \quad (3 \text{ 点})$$

$$\begin{aligned} (8) \quad 3x^2 - 5xy - 2y^2 + 2x + 3y - 1 \\ &= 3x^2 + (-5y+2)x + (-2y^2+3y-1) \\ &= 3x^2 + (-5y+2)x - (2y^2-3y+1) \\ &= 3x^2 + (-5y+2)x - (2y-1)(y-1) \\ &= \{3x + (y-1)\}\{x - (2y-1)\} \\ &= (3x+y-1)(x-2y+1) \end{aligned}$$

$$\begin{array}{r} \hline 3 \quad \quad \quad y-1 \longrightarrow y-1 \\ 1 \quad \quad \quad - (2y-1) \longrightarrow \hline -6y+3 \\ \quad \quad \quad \quad \quad \quad -5y+2 \end{array}$$

(4 点)