

81

式の展開

年 組 番 名前

● 例題 ●

次の計算をなさい。

$$(1) \begin{array}{c} \overset{\textcircled{1}}{\curvearrowright} \quad \overset{\textcircled{2}}{\curvearrowright} \\ (x+2)(y+3) \\ \underset{\textcircled{3}}{\curvearrowleft} \quad \underset{\textcircled{4}}{\curvearrowleft} \\ = xy + 3x + 2y + 6 \\ \textcircled{1} \quad \textcircled{2} \quad \textcircled{3} \quad \textcircled{4} \end{array}$$

問1 次の計算をなさい。

$$(1) \begin{aligned} &(x+2)(y+5) \\ &= xy + 5x + 2y + 10 \\ &\text{答. } \underline{\underline{xy + 5x + 2y + 10}} \end{aligned}$$

$$(2) \begin{aligned} &(x-3)(y+7) \\ &= xy + 7x - 3y - 21 \\ &\text{答. } \underline{\underline{xy + 7x - 3y - 21}} \end{aligned}$$

$$(3) \begin{aligned} &(a-4)(b-2) \\ &= ab - 2a - 4b + 8 \\ &\text{答. } \underline{\underline{ab - 2a - 4b + 8}} \end{aligned}$$

$$(4) \begin{aligned} &(-a+b)(x+y) \\ &= -ax - ay + bx + by \\ &\text{答. } \underline{\underline{-ax - ay + bx + by}} \end{aligned}$$

$$(5) \begin{aligned} &(x-y)(a-2b) \\ &= ax - 2bx - ay + 2by \\ &\text{答. } \underline{\underline{ax - 2bx - ay + 2by}} \end{aligned}$$

$$(6) \begin{aligned} &(2x+1)(x+3) \\ &= 2x^2 + 6x + x + 3 \\ &= 2x^2 + 7x + 3 \\ &\text{答. } \underline{\underline{2x^2 + 7x + 3}} \end{aligned}$$

$$(7) \begin{aligned} &(x-4)(3x+1) \\ &= 3x^2 + x - 12x - 4 \\ &= 3x^2 - 11x - 4 \\ &\text{答. } \underline{\underline{3x^2 - 11x - 4}} \end{aligned}$$

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

$$(9) \begin{aligned} &(3x-5)(4x-1) \\ &= 12x^2 - 3x - 20x + 5 \\ &= 12x^2 - 23x + 5 \\ &\text{答. } \underline{\underline{12x^2 - 23x + 5}} \end{aligned}$$

$$(10) \begin{aligned} &(5a-7)(5a+7) \\ &= 25a^2 + 35a - 35a - 49 \\ &= 25a^2 - 49 \\ &\text{答. } \underline{\underline{25a^2 - 49}} \end{aligned}$$

$$(11) \begin{aligned} &(x+3y)(x+2y) \\ &= x^2 + 2xy + 3xy + 6y^2 \\ &= x^2 + 5xy + 6y^2 \\ &\text{答. } \underline{\underline{x^2 + 5xy + 6y^2}} \end{aligned}$$

$$(12) \begin{aligned} &(x-6y)(x+y) \\ &= x^2 + xy - 6xy - 6y^2 \\ &= x^2 - 5xy - 6y^2 \\ &\text{答. } \underline{\underline{x^2 - 5xy - 6y^2}} \end{aligned}$$

$$(13) \begin{aligned} &(3x+2y)(2x-3y) \\ &= 6x^2 - 9xy + 4xy - 6y^2 \\ &= 6x^2 - 5xy - 6y^2 \\ &\text{答. } \underline{\underline{6x^2 - 5xy - 6y^2}} \end{aligned}$$

$$(14) \begin{aligned} &(2x-7y)(2x-4y) \\ &= 4x^2 - 8xy - 14xy + 28y^2 \\ &= 4x^2 - 22xy + 28y^2 \\ &\text{答. } \underline{\underline{4x^2 - 22xy + 28y^2}} \end{aligned}$$

$$(15) \begin{aligned} &(6a+2b)(2b-6a) \\ &= 12ab - 36a^2 + 4b^2 - 12ab \\ &= -36a^2 + 4b^2 \\ &\text{答. } \underline{\underline{-36a^2 + 4b^2}} \end{aligned}$$