

多項式24

__組__番 氏名__

<多項式のまとめ2>

問1 次の式を展開しなさい。

$$\begin{array}{lll}
 \textcircled{1} (x+1)(x+2) & \textcircled{2} (x+5)(x-2) & \textcircled{3} (x-3)(x-4) \\
 = x^2 + 3x + 2 & = x^2 + 3x - 10 & = x^2 - 7x + 12 \\
 \\
 \textcircled{4} (y+3)(y+5) & \textcircled{5} (a-7)(a-3) & \textcircled{6} (x-6)(x+5) \\
 = y^2 + 8y + 15 & = a^2 - 10a + 21 & = x^2 - x - 30
 \end{array}$$

問2 次の式を展開しなさい。

$$\begin{array}{lll}
 \textcircled{1} (x+6)^2 & \textcircled{2} (a+9)^2 & \textcircled{3} (y-5)^2 \\
 = x^2 + 12x + 36 & = a^2 + 18a + 81 & = y^2 - 10y + 25 \\
 \\
 \textcircled{4} (a-7)^2 & \textcircled{5} (a-b)^2 & \textcircled{6} \left(x + \frac{1}{3}\right)^2 \\
 = a^2 - 14a + 49 & = a^2 - 2ab + b^2 & = x^2 + \frac{2}{3}x + \frac{1}{9}
 \end{array}$$

問3 次の式を展開しなさい。

$$\begin{array}{lll}
 \textcircled{1} (a+b)(a-b) & \textcircled{2} (x+5)(x-5) & \textcircled{3} (x-8)(x+8) \\
 = a^2 - b^2 & = x^2 - 25 & = x^2 - 64 \\
 \\
 \textcircled{4} (2+x)(2-x) & \textcircled{5} \left(y + \frac{1}{7}\right)\left(y - \frac{1}{7}\right) & \textcircled{6} (a+4)(4-a) \\
 = 4 - x^2 & = y^2 - \frac{1}{49} & = 16 - a^2
 \end{array}$$

問4 次の式を因数分解しなさい。

$$\begin{array}{ll}
 \textcircled{1} ay + by = y(a+b) & \textcircled{2} 3a - 6b = 3(a-2b) \\
 \\
 \textcircled{3} 6x - 9x^2 = 3x(2-3x) & \textcircled{4} 10a^2 + 5a = 5a(2a+1) \\
 \\
 \textcircled{5} xy^2 - x^2y = xy(y-x) & \textcircled{6} 9xy^2 - 6x^2y - 3xy = \\
 & 3xy(3y-2x-1)
 \end{array}$$