

<因数分解の解き方1>

●共通因数●

$$\begin{aligned}
 & x^2 - 5x \\
 &= \textcircled{x} \times \cancel{x-5} \times \textcircled{x} \quad \text{各項に共通な因数を見つける,} \quad \rightarrow \text{共通因数} \\
 &= \textcircled{x} \cancel{(x-5)} \quad \text{共通因数を取り出し, かっこでくくり,} \\
 & \quad \text{残りをかっこの中を書く}
 \end{aligned}$$

$$\begin{aligned}
 & 3ax - 6ay \\
 &= 3 \times a \times x - 2 \times 3 \times a \times y \\
 &= 3a(x - 2y)
 \end{aligned}
 \qquad
 \begin{aligned}
 & 3ax^2 - 6ax + 9a \\
 &= 3 \times a \times x \times x - 2 \times 3 \times a \times x + 9 \times a \\
 &= 3a(x^2 - 2x + 3)
 \end{aligned}$$

問1 次の式を因数分解しなさい。

$$\begin{aligned}
 \textcircled{1} \quad & ay + by \\
 &= y(a + b)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{2} \quad & 3a - 6b \\
 &= 3(a - 2b)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{3} \quad & 6x - 9x^2 \\
 &= 3x(2 - 3x)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{4} \quad & 10a^2 + 5a \\
 &= 5a(2a + 1)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{5} \quad & xy^2 - x^2y \\
 &= xy(y - x)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{6} \quad & 9xy^2 - 6x^2y - 3xy \\
 &= 3xy(3y - 2x - 1)
 \end{aligned}$$

問2 次の式を因数分解しなさい。

$$\begin{aligned}
 \textcircled{1} \quad & ax - bx \\
 &= x(a - b)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{2} \quad & 6mx - 2nx \\
 &= 2x(3m - n)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{3} \quad & 5x^2 - 10xy \\
 &= 5x(x - 2y)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{4} \quad & xy^2 - x^2y \\
 &= xy(y - x)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{5} \quad & x^2 - x \\
 &= x(x - 1)
 \end{aligned}$$

$$\begin{aligned}
 \textcircled{6} \quad & 4a^2b - 6ab^2 - 10ab \\
 &= 2ab(2a - 3b - 5)
 \end{aligned}$$