

因数分解練習問題2
公式1による因数分解

I. 次の式を因数分解しなさい。

$$\begin{aligned} \textcircled{1} \quad x^2 + 7x + 12 &= (x+3)(x+4) \\ \textcircled{2} \quad x^2 + 13x + 12 &= (x+1)(x+12) \\ \textcircled{3} \quad x^2 + 9x + 20 &= (x+4)(x+5) \\ \textcircled{4} \quad x^2 + 12x + 20 &= (x+2)(x+10) \\ \textcircled{5} \quad x^2 + 10x + 21 &= (x+3)(x+7) \\ \textcircled{6} \quad x^2 + 10x + 16 &= (x+2)(x+8) \\ \textcircled{7} \quad x^2 + 8x + 12 &= (x+2)(x+6) \\ \textcircled{8} \quad x^2 + 8x + 15 &= (x+3)(x+5) \\ \textcircled{9} \quad x^2 + 8x + 7 &= (x+1)(x+7) \\ \textcircled{10} \quad x^2 + 8x + 16 &= (x+4)(x+4) \\ &\quad = (x+4)^2 \end{aligned}$$

II. 次の式を因数分解しなさい。

$$\begin{aligned} \textcircled{1} \quad x^2 + 6x + 8 &= (x+2)(x+4) \\ \textcircled{2} \quad x^2 + 9x + 8 &= (x+1)(x+8) \\ \textcircled{3} \quad x^2 + 11x + 18 &= (x+2)(x+9) \\ \textcircled{4} \quad x^2 + 9x + 18 &= (x+3)(x+6) \\ \textcircled{5} \quad x^2 + 19x + 18 &= (x+1)(x+18) \\ \textcircled{6} \quad x^2 + 9x + 14 &= (x+2)(x+7) \\ \textcircled{7} \quad x^2 + 10x + 24 &= (x+4)(x+6) \\ \textcircled{8} \quad x^2 + 11x + 24 &= (x+3)(x+8) \\ \textcircled{9} \quad x^2 + 14x + 24 &= (x+2)(x+12) \\ \textcircled{10} \quad x^2 + 25x + 24 &= (x+1)(x+24) \end{aligned}$$

因数分解練習問題3
公式1による因数分解

I. 次の式を因数分解しなさい。

$$\begin{aligned} \textcircled{1} \quad x^2 + 5x + 6 &= (x+2)(x+3) \\ \textcircled{2} \quad x^2 + 7x + 6 &= (x+1)(x+6) \\ \textcircled{3} \quad x^2 - 5x + 6 &= (x-2)(x-3) \\ \textcircled{4} \quad x^2 - 7x + 6 &= (x-1)(x-6) \\ \textcircled{5} \quad x^2 + 5x - 6 &= (x-1)(x+6) \\ \textcircled{6} \quad x^2 - 5x - 6 &= (x+1)(x-6) \\ \textcircled{7} \quad x^2 + x - 6 &= (x-2)(x+3) \\ \textcircled{8} \quad x^2 - x - 6 &= (x+2)(x-3) \\ \textcircled{9} \quad x^2 - 5x + 4 &= (x-1)(x-4) \\ \textcircled{10} \quad x^2 - 4x - 12 &= (x-6)(x+2) \end{aligned}$$

II. 次の式を因数分解しなさい。

$$\begin{aligned} \textcircled{1} \quad x^2 + 2x + 1 &= (x+1)(x+1) \\ &\quad = (x+1)^2 \\ \textcircled{2} \quad x^2 - x - 6 &= (x-3)(x+2) \\ \textcircled{3} \quad x^2 - x - 30 &= (x+5)(x-6) \\ \textcircled{4} \quad x^2 - x - 12 &= (x+3)(x-4) \\ \textcircled{5} \quad x^2 - 4x - 12 &= (x-6)(x+2) \\ \textcircled{6} \quad x^2 - 11x - 12 &= (x+1)(x-12) \\ \textcircled{7} \quad x^2 - 8x + 7 &= (x-1)(x-7) \\ \textcircled{8} \quad x^2 + 6x + 5 &= (x+1)(x+5) \\ \textcircled{9} \quad x^2 - 11x - 12 &= (x+1)(x-12) \\ \textcircled{10} \quad x^2 + 5x - 14 &= (x-2)(x+7) \end{aligned}$$

因数分解練習問題4
公式1による因数分解

I. 次の式を因数分解しなさい。

$$\begin{aligned} \textcircled{1} \quad x^2 - 6x - 7 &= (x+1)(x-7) \\ \textcircled{2} \quad x^2 - x - 20 &= (x+4)(x-5) \\ \textcircled{3} \quad x^2 + x - 20 &= (x-4)(x+5) \\ \textcircled{4} \quad x^2 - 11x + 18 &= (x-2)(x-9) \\ \textcircled{5} \quad x^2 + 10x + 9 &= (x+1)(x+9) \\ \textcircled{6} \quad x^2 - 10x + 16 &= (x-2)(x-8) \\ \textcircled{7} \quad x^2 + x - 12 &= (x+4)(x-3) \\ \textcircled{8} \quad x^2 - x - 12 &= (x-4)(x+3) \\ \textcircled{9} \quad x^2 - 2x + 1 &= (x-1)(x-1) \\ &\quad = (x-1)^2 \\ \textcircled{10} \quad x^2 + x - 6 &= (x+3)(x-2) \end{aligned}$$

II. 次の式を因数分解しなさい。

$$\begin{aligned} \textcircled{1} \quad x^2 - 4x + 4 &= (x-2)(x-2) \\ &\quad = (x-2)^2 \\ \textcircled{2} \quad x^2 - 7x + 12 &= (x-3)(x-4) \\ \textcircled{3} \quad x^2 - 8x + 12 &= (x-2)(x-6) \\ \textcircled{4} \quad x^2 + 4x - 12 &= (x+6)(x-2) \\ \textcircled{5} \quad x^2 - 2x - 8 &= (x-4)(x+2) \\ \textcircled{6} \quad x^2 - 10x + 24 &= (x-4)(x-6) \\ \textcircled{7} \quad x^2 - 3x + 2 &= (x-1)(x-2) \\ \textcircled{8} \quad x^2 + 2x - 3 &= (x+3)(x-1) \\ \textcircled{9} \quad x^2 - x - 42 &= (x+6)(x-7) \\ \textcircled{10} \quad x^2 + x - 2 &= (x+2)(x-1) \end{aligned}$$