

■ 次の式を因数分解しなさい。

① $4x^2+19x-5$

$$\begin{array}{r} \times \quad \rightarrow \\ \times \quad \rightarrow \\ \hline 4 \quad -5 \quad 19 \end{array}$$

② $5x^2+16x+3$

③ $2x^2-x-3$

④ $4x^2-19x+12$

⑤ $3x^2-19x+20$

⑥ $3x^2+17x+20$

⑦ $4x^2+17x+15$

⑧ $9x^2-15x+4$

⑨ $4x^2+4x+1$

⑩ $12x^2+23x+10$

⑪ $4x^2-20x+25$

⑫ $20x^2-7x-6$

■ 次の式を因数分解しなさい。

① $4x^2+19x-5$

$$\begin{array}{r} 1 \quad \times \quad 5 \rightarrow 20 \\ 4 \quad \times \quad -1 \rightarrow -1 \\ \hline 4 \quad -5 \quad 19 \end{array} \quad \boxed{(x+5)(4x-1)}$$

② $5x^2+16x+3$

$$\begin{array}{r} 1 \quad \times \quad 3 \rightarrow 15 \\ 5 \quad \times \quad 1 \rightarrow 5 \\ \hline 5 \quad 3 \quad 16 \end{array} \quad \boxed{(x+3)(5x+1)}$$

③ $2x^2-x-3$

$$\begin{array}{r} 1 \quad \times \quad 1 \rightarrow 2 \\ 2 \quad \times \quad -3 \rightarrow -3 \\ \hline 2 \quad -3 \quad -1 \end{array} \quad \boxed{(x+1)(2x-3)}$$

④ $4x^2-19x+12$

$$\begin{array}{r} 1 \quad \times \quad -4 \rightarrow -16 \\ 4 \quad \times \quad -3 \rightarrow -3 \\ \hline 4 \quad 12 \quad -19 \end{array} \quad \boxed{(x-4)(4x-3)}$$

⑤ $3x^2-19x+20$

$$\begin{array}{r} 1 \quad \times \quad -5 \rightarrow -15 \\ 3 \quad \times \quad -4 \rightarrow -4 \\ \hline 3 \quad 20 \quad -19 \end{array} \quad \boxed{(x-5)(3x-4)}$$

⑥ $3x^2+17x+20$

$$\begin{array}{r} 1 \quad \times \quad 4 \rightarrow 12 \\ 3 \quad \times \quad 5 \rightarrow 5 \\ \hline 3 \quad 20 \quad 17 \end{array} \quad \boxed{(x+4)(3x+5)}$$

⑦ $4x^2+17x+15$

$$\begin{array}{r} 1 \quad \times \quad 3 \rightarrow 12 \\ 4 \quad \times \quad 5 \rightarrow 5 \\ \hline 4 \quad 15 \quad 17 \end{array} \quad \boxed{(x+3)(4x+5)}$$

⑧ $9x^2-15x+4$

$$\begin{array}{r} 3 \quad \times \quad -4 \rightarrow -12 \\ 3 \quad \times \quad -1 \rightarrow -3 \\ \hline 9 \quad 4 \quad -15 \end{array} \quad \boxed{(3x-4)(3x-1)}$$

⑨ $4x^2+4x+1$

$$\begin{array}{r} 2 \quad \times \quad 1 \rightarrow 2 \\ 2 \quad \times \quad 1 \rightarrow 2 \\ \hline 4 \quad 4 \quad 1 \end{array} \quad \boxed{(2x+1)^2}$$

⑩ $12x^2+23x+10$

$$\begin{array}{r} 4 \quad \times \quad 5 \rightarrow 15 \\ 3 \quad \times \quad 2 \rightarrow 8 \\ \hline 12 \quad 10 \quad 23 \end{array} \quad \boxed{(4x+5)(3x+2)}$$

⑪ $4x^2-20x+25$

$$\begin{array}{r} 2 \quad \times \quad -5 \rightarrow -10 \\ 2 \quad \times \quad -5 \rightarrow -10 \\ \hline 4 \quad 25 \quad -20 \end{array} \quad \boxed{(2x-5)^2}$$

⑫ $20x^2-7x-6$

$$\begin{array}{r} 4 \quad \times \quad -3 \rightarrow -15 \\ 5 \quad \times \quad 2 \rightarrow 8 \\ \hline 20 \quad -6 \quad -7 \end{array} \quad \boxed{(4x-3)(5x+2)}$$