

■ 次の式を因数分解しなさい。

① $3x^2 - 19x + 20$

| | | |
|----------|---------------|-----|
| \times | \rightarrow | |
| \times | \rightarrow | |
| 3 | 20 | -19 |

② $12x^2 + 19x + 5$

③ $4x^2 + 4x - 15$

④ $3x^2 + 7x - 20$

⑤ $15x^2 - 26x + 8$

⑥ $2x^2 - 3x - 2$

⑦ $2x^2 - 9x + 10$

⑧ $16x^2 - 16x - 5$

⑨ $10x^2 + 7x + 1$

⑩ $4x^2 - 17x + 4$

⑪ $4x^2 + 7x + 3$

⑫ $9x^2 - 12x + 4$

■ 次の式を因数分解しなさい。

① $3x^2 - 19x + 20$

$$\begin{array}{r} 1 \quad \times \quad -5 \rightarrow -15 \\ 3 \quad \times \quad -4 \rightarrow -12 \\ \hline 3 \quad 20 \quad -19 \end{array} \quad \boxed{(x-5)(3x-4)}$$

② $12x^2 + 19x + 5$

$$\begin{array}{r} 4 \quad \times \quad 5 \rightarrow 20 \\ 3 \quad \times \quad 1 \rightarrow 3 \\ \hline 12 \quad 5 \quad 19 \end{array} \quad \boxed{(4x+5)(3x+1)}$$

③ $4x^2 + 4x - 15$

$$\begin{array}{r} 2 \quad \times \quad 5 \rightarrow 10 \\ 2 \quad \times \quad -3 \rightarrow -6 \\ \hline 4 \quad -15 \quad 4 \end{array} \quad \boxed{(2x+5)(2x-3)}$$

④ $3x^2 + 7x - 20$

$$\begin{array}{r} 1 \quad \times \quad 4 \rightarrow 4 \\ 3 \quad \times \quad -5 \rightarrow -15 \\ \hline 3 \quad -20 \quad 7 \end{array} \quad \boxed{(x+4)(3x-5)}$$

⑤ $15x^2 - 26x + 8$

$$\begin{array}{r} 3 \quad \times \quad -4 \rightarrow -12 \\ 5 \quad \times \quad -2 \rightarrow -10 \\ \hline 15 \quad 8 \quad -26 \end{array} \quad \boxed{(3x-4)(5x-2)}$$

⑥ $2x^2 - 3x - 2$

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

⑦ $2x^2 - 9x + 10$

$$\begin{array}{r} 1 \quad \times \quad -2 \rightarrow -2 \\ 2 \quad \times \quad -5 \rightarrow -10 \\ \hline 2 \quad 10 \quad -9 \end{array} \quad \boxed{(x-2)(2x-5)}$$

⑧ $16x^2 - 16x - 5$

$$\begin{array}{r} 4 \quad \times \quad 1 \rightarrow 4 \\ 4 \quad \times \quad -5 \rightarrow -20 \\ \hline 16 \quad -5 \quad -16 \end{array} \quad \boxed{(4x+1)(4x-5)}$$

⑨ $10x^2 + 7x + 1$

$$\begin{array}{r} 2 \quad \times \quad 1 \rightarrow 2 \\ 5 \quad \times \quad 1 \rightarrow 5 \\ \hline 10 \quad 1 \quad 7 \end{array} \quad \boxed{(2x+1)(5x+1)}$$

⑩ $4x^2 - 17x + 4$

$$\begin{array}{r} 1 \quad \times \quad -4 \rightarrow -4 \\ 4 \quad \times \quad -1 \rightarrow -4 \\ \hline 4 \quad 4 \quad -17 \end{array} \quad \boxed{(x-4)(4x-1)}$$

⑪ $4x^2 + 7x + 3$

$$\begin{array}{r} 1 \quad \times \quad 1 \rightarrow 1 \\ 4 \quad \times \quad 3 \rightarrow 12 \\ \hline 4 \quad 3 \quad 7 \end{array} \quad \boxed{(x+1)(4x+3)}$$

⑫ $9x^2 - 12x + 4$

$$\begin{array}{r} 3 \quad \times \quad -2 \rightarrow -6 \\ 3 \quad \times \quad -2 \rightarrow -6 \\ \hline 9 \quad 4 \quad -12 \end{array} \quad \boxed{(3x-2)^2}$$