

$$\textcircled{1} \underset{a}{2}x^2 + \underset{b}{11}x + \underset{c}{12}$$

\textcircled{2} ac method of factoring

$$\textcircled{3} \begin{array}{l|l|l|l} 2 \cdot 12 = 24 & 12 \cdot 2 = 24 \neq & 6 \cdot 4 = 24 & 8 \cdot 3 = 24 \\ \hline & 12 + 2 \neq 11 & 6 + 4 \neq 11 & 8 + 3 = 11 \end{array}$$

$$\textcircled{4} (2x^2 + 8x) + 3x + 12 \quad \text{or} \quad (2x^2 + 3x) + (8x + 12)$$

$$\textcircled{5} \underline{2x(x+4)} + \underline{3(x+4)} \quad | \quad \underline{x(2x+3)} + \underline{4(2x+3)}$$

$$\textcircled{6} (2x+3)(x+4) \quad | \quad (x+4)(2x+3)$$

$$\textcircled{1} \underset{a}{4}x^2 - \underset{b}{4}x - \underset{c}{3}$$

$$\textcircled{2} \underline{-6}x \underline{2} = -12$$

$$\underline{-6} + \underline{2} = -4$$

$$\textcircled{3} 4x^2 + 2x - 6x - 3$$

$$\textcircled{4} \underline{2 \cdot x \cdot x} + \underline{2 \cdot x \cdot -3} - \underline{3 \cdot 2 \cdot x} - \underline{3}$$

$$\textcircled{5} \underline{2x(2x+1)} - \underline{3(2x+1)} \quad \textcircled{6}^* (2x-3)(2x+1)$$

$$\textcircled{1} 4x^2 + 7x + 3$$

$$\textcircled{2} 4 \cdot 3 = 12 \quad (\text{AC method})$$

$$\textcircled{3} \frac{4}{4} \times \frac{3}{3} = 12$$

$$\frac{4}{4} + \frac{3}{3} = 7$$

$$\textcircled{4} (4x^2 + 4x) + (3x + 3)$$

$$\textcircled{5} 4x(x+1) + 3(x+1)$$

$$\textcircled{6} (4x+3)(x+1)$$

