

$$\begin{aligned}
& 6x^2 + 49 + 30 \\
&= 6 \left[x^2 + \frac{49}{6}x + 5 \right] \\
&= 6 \left[x^2 + \frac{49}{6}x + \left(\frac{49}{12}\right)^2 - \left(\frac{49}{12}\right)^2 + 5 \right] \\
&= 6 \left[\left(x + \frac{49}{12}\right)^2 - \left(\frac{49}{12}\right)^2 + 5 \right] \\
&= 6 \left[X^2 - \frac{1681}{144} \right] \\
&= 6 \left(X - \frac{41}{12} \right) \left(X + \frac{41}{12} \right) \\
&= 6 \left(x + \frac{49}{12} - \frac{41}{12} \right) \left(x + \frac{49}{12} + \frac{41}{12} \right) \\
&= 3 \left(x + \frac{2}{3} \right) 2 \left(x + \frac{15}{2} \right) \\
&= (3x + 2)(2x + 15)
\end{aligned}$$

練習問題

- 1) $27x^2 + 6x - 8$
- 2) $24x^2 - 2x - 15$
- 3) $8x^2 + 2x - 15$
- 4) $12x^2 - 25x - 7$
- 5) $10x^2 + 23x - 42$

6) $27x^2 - 3x - 14$

7) $24x^2 + 46x + 21$

8) $8x^2 - 2x - 21$