

$$\begin{array}{r} \boxed{(x+3)(x-6)(x+1)^2} \\ x^4 - x^3 - 23x^2 - 39x - 18 \end{array} \left| \begin{array}{r} x^2 - 5x - 6 \\ \hline x + 3 \end{array} \right.$$

$$\begin{array}{r} \boxed{7(x+1)(x-2)(x+4)(x^2+1)(x-4)} \\ 7x^6 - 7x^5 - 119x^4 + 105x^3 + 98x^2 + 112x + 224 \end{array} \left| \begin{array}{r} x^2 + 1 \\ \hline \end{array} \right.$$

$x = 3 \rightarrow 49$