

$$\begin{array}{r}
 x^2 - 3x + 2 \overline{\begin{array}{r} 3x \\ 3x^3 - 8x^2 + 4x - 1 \\ 3x^3 - 9x^2 + 6x \end{array}} \\
 \hline
 x^2 - 2x - 1
 \end{array}
 \longleftarrow 3x(x^2 - 3x + 2)$$