

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