

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