

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