$$x + 1 \overline{\smash{\big)}\ \begin{aligned}&x^2 + 2x + 5\\ &\underline{x^3 + 3x^2 + 7x + 5}\end{aligned}}$$

$$
\begin{array}{r}
x^2 + 2x + 5 \\
x+1 \overline{\smash{)}\ x^3 + 3x^2 + 7x + 5} \\
\underline{x^3 + x^2} \qquad\qquad\quad \longleftarrow x^2(x+1) \\
2x^2 + 7x + 5 \\
\underline{2x^2 + 2x} \qquad\quad \longleftarrow 2x(x+1) \\
5x + 5 \\
\underline{5x + 5} \quad \longleftarrow 5(x+1) \\
0
\end{array}
$$