

$$\begin{array}{r}
 P(X) \rightarrow X^5 + X^4 + X^2 + 1 \overline{) \begin{array}{l} X^9 + X^8 + X^6 + X^4 + X^2 + X \\ X^{14} \phantom{+ X^{13}} + X^{12} \phantom{+ X^{11}} + X^8 + X^7 + X^5 \end{array} } \begin{array}{l} \leftarrow Q(X) \\ \leftarrow X^5 D(X) \end{array} \\
 \underline{X^{14} + X^{13} + X^{11} + X^9} \\
 X^{13} + X^{12} + X^{11} + X^9 + X^8 \\
 \underline{X^{13} + X^{12} + X^{10} + X^8} \\
 X^{11} + X^{10} + X^9 + X^7 \\
 \underline{X^{11} + X^{10} + X^8 + X^6} \\
 X^9 + X^8 + X^7 + X^6 + X^5 \\
 \underline{X^9 + X^8 + X^6 + X^4} \\
 X^7 + X^5 + X^4 \\
 \underline{X^7 + X^6 + X^4 + X^2} \\
 X^6 + X^5 + X^2 \\
 \underline{X^6 + X^5 + X^3 + X} \\
 X^3 + X^2 + X \leftarrow R(X)
 \end{array}$$

Figure 6.5 Example of Polynomial Division