- Let $g(x) = x^3 - 5x + 7$. Use synthetic division and the remainder theorem to compute $g(-3)$.

$$
\begin{array}{r|rrrr}
-3 & 1 & 0 & -5 & 7 \\
   &   & -3 & 9 & -12 \\
\hline
   & 1 & -3 & 4 & -5
\end{array}
$$

$$g(-3) = -5$$