

- Use synthetic division to find the quotient and remainder: $(5x^2 - 3x + 7) \div (x - 3)$

$$\begin{array}{r|rrr} 3 & 5 & -3 & 7 \\ & & 15 & 36 \\ \hline & 5 & 12 & 43 \end{array}$$

$$5x + 12 + \frac{43}{x-3}$$