4.1 HW

Describe the graphs of $p(x)$ and $q(x)$ and then make an estimate of their sum, difference, product, and quotient functions before using a graphing tool.

$$p(x) = x^3 - 3x - 1 \qquad\qquad q(x) = x - 1$$
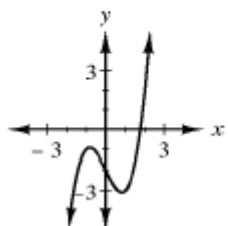
a. $p(x) + q(x)$

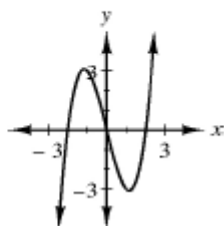b. $p(x) - q(x)$

c. $p(x) \cdot q(x)$

d. $\dfrac{p(x)}{q(x)}$

e. For parts (a) through (d) above, sketch a careful graph and make a note of the shape, the domain and range, and any other characteristics you notice. Be prepared to share your observations with the class.
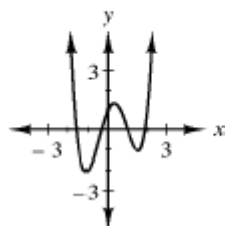
Answer Key

a. $p(x)+q(x)$ b. $p(x)-q(x)$ c. $p(x)\cdot q(x)$ d. $\dfrac{p(x)}{q(x)}$