1.) (5 pts.) An economist is interested in how the price of a certain item affects its sales. At a price of $p$, a quantity, $q$, of the item is sold. If $q = f(p)$, explain the meaning of each of the following statements:

   a.) $f(150) = 2000$

   At a price of $\$150$, 2000 products are sold.

   b.) $f'(150) = -25$

   If the price is raised by $\$1$ per item, approximately 25 fewer items are sold.

2.) (5 pts.) Consider the function shown to the right:

   a.) Is its first derivative positive or negative?

   b.) Is its second derivative positive or negative?