1. (5) Use the limit definition of the derivative to find $f'(x)$ for the function $f(x) = \frac{3}{x^2}$. 
2. (2ea) Use the graph of \( y = f(x) \) given below to answer the questions about the derivative function \( f'(x) \)

(a) At which marked \( x \)-value(s) is \( f'(x) \) positive?

(b) At which marked \( x \)-value(s) is \( f'(x) \) negative?

(c) At which marked \( x \)-value(s) is \( f'(x) \) zero?

(d) At which marked \( x \)-value(s) is \( f'(x) \) greatest?

3. (2) The following figure depicts a function \( g(x) \) and its tangent line at a point. Use the figure to fill in the blanks.

\[ g(-1) = \underline{\text{_____}} \]

\[ g'(1) = \underline{\text{_____}} \]
4. (5) Suppose a company’s cost to produce their main product is given by the function $C(x) = x^3 - 5x + 8$. Determine the company’s marginal cost function, $C'(x)$. 
