Math 105 Section C  
Quiz 1 (10 points)

Name: __________________________________________

• Show all your work to receive full credit for a problem.

1. The graph of a function \( f \) is given below. Use the graph to answer the questions that follow.

![Graph of function](image)

(a) Draw the tangent line at \( x = -3 \) and estimate \( f'(-3) \).

(b) On the axes below, sketch the graph of the derivative function of \( f \). You do not need to show the scale on the vertical axis.
2. The graph of the derivative of a function $g$ is given below. (So the graph of the function $g'$ is given below). Use the graph to answer the questions that follow.

(a) On which interval(s) is the function $g$ increasing?

(b) Where does $g$ have local maximum points?

(c) Where does $g$ have points of inflection?

(d) Suppose that $g(2) = 5$. Find an equation of the line tangent to $g$ at $x = 2$.

(e) On which interval(s) is the function $g''$ positive?