

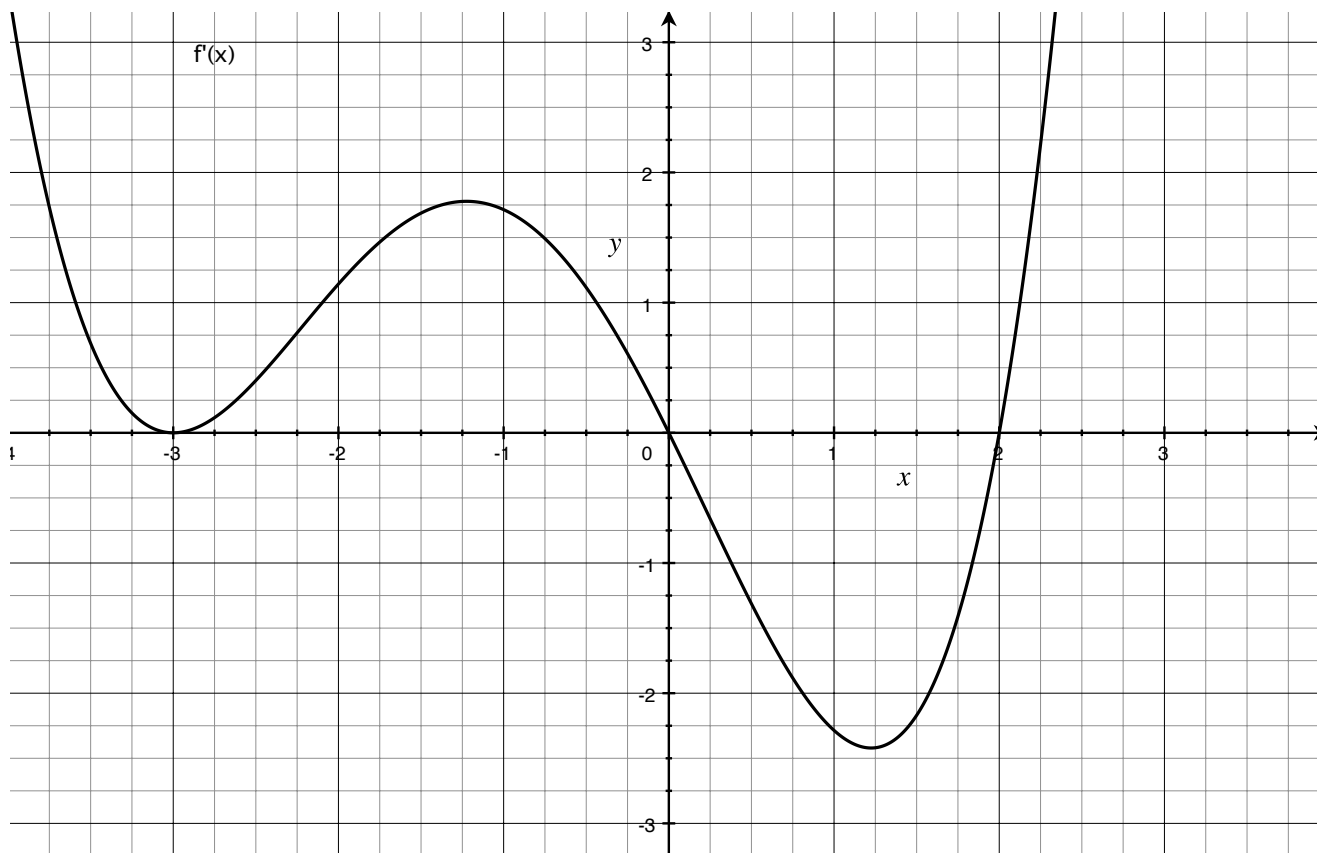
Math 105 Quiz 2

§1.4-§1.7

Name:

Show all work for credit. You may use a calculator.

1. The following is a graph of  $f'(x)$ . Assume the graph is defined over all real numbers.



- (a) On what intervals is  $f(x)$  increasing?
  - (b) On what intervals is  $f(x)$  decreasing?
  - (c) Find all the stationary points of  $f(x)$ . Classify them as max points, min points, or neither.
  - (d) Where does  $f(x)$  have inflection points?
2. Using the graph above. Calculate an estimate for the second derivative ( $f''(x)$ ) at  $x = -2$  by drawing in the tangent line.
3. On the graph above. Draw a picture of  $f''(x)$ .