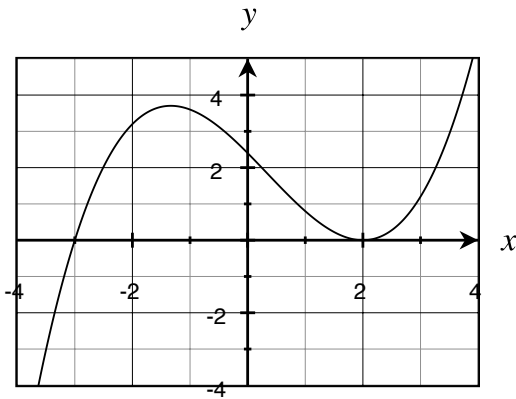


Name: _____

Math 105B: Fall 2012
Quiz 2: September 26

Please write your final answer in the space provided. Correct answers accompanied by incorrect or incomplete work will not receive full credit. **Justify all answers.** Good Luck!

1. The graph below is a graph of $y = g''(x)$.



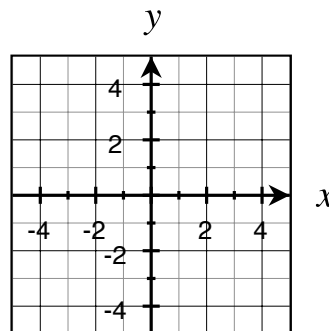
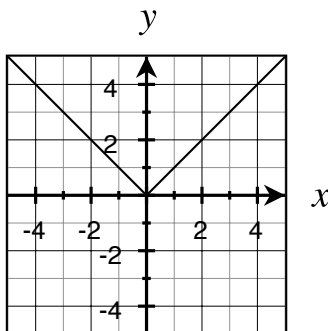
- (a) On what interval(s) is g' decreasing? Justify your answer.

(1a) _____

- (b) For what x -value(s) does g have an inflection point? Justify your answer.

(1b) _____

2. The graph below is a graph of $y = f(x)$. Sketch a graph of $f'(x)$.



3. Let $h'(x) = \sqrt{x} - 3$.

(a) Is $h(x)$ increasing at $x = 1$? Justify your answer.

(3a)_____

(b) Is $h(x)$ concave up at $x = 4$? Justify your answer.

(3b)_____

(c) Why does $h(x)$ have a stationary point at $x = 9$?

(3c)_____

(d) Is the stationary point at $x = 9$ a local minimum, local maximum, or neither? Justify your answer.

(3d)_____