

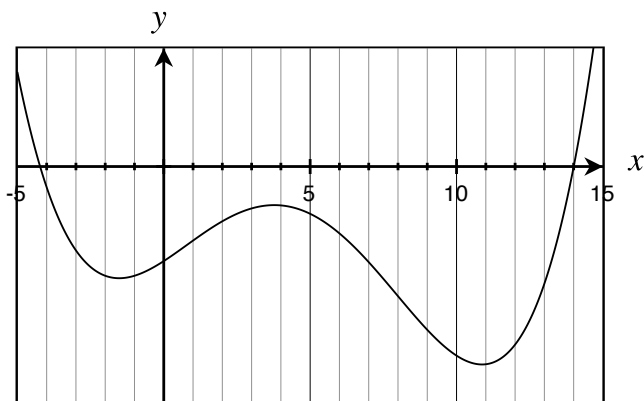
Name: _____

Math 105A: Fall 2012

Quiz 1: September 18

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

1. The graph below is a graph of $y = f(x)$. Rank $f'(0)$, $f'(7)$, $f'(11)$, $f'(13)$ in increasing order.



(1) _____

2. Consider the function $g(x) = \frac{1}{1 - \sqrt{x}}$.

(a) What is the domain of $g(x)$?

(2a) _____

(b) Is 1 is the range of $g(x)$? Explain your answer.

(2b) _____

3. Let $h(x) = \log_b x$ where $b > 1$.

(a) What is the domain of $h(x)$?

(3a)_____

(b) What is the range of $h(x)$?

(3b)_____

(c) What are the root(s) of $h(x)$?

(3c)_____

(d) Is the graph of $h(x)$ concave up or concave down?

(3d)_____