

Math 151

Show Your Work!

Good Luck!

Nov.13, 2018

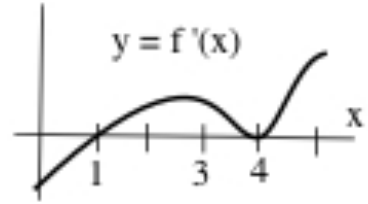
Quiz #6 A (last one!)

Name _____

(please print)

1. The graph of $y = f'(x)$ is shown.

- (a) At $x = 1$ f has a local MAX MIN NEITHER (circle one).
 (5) (b) At $x = 4$ f has a local MAX MIN NEITHER (circle one).
 (c) At $x = 3$ f is INCREASING DECREASING (circle one)
 (d) $f(x)$ is largest when $x = 1 \ 2 \ 3 \ 4 \ 5$ (circle one)
 (e) At $x = 3$ the graph of $f(x)$ is concave UP DOWN NEITHER (circle one)



(3) 2. $g'(x) = 3e^x + 6\cos(x) + 4x + 5$ and $g(0)=9$. Then

$g(x) =$ _____

(2) 3. $f'(x) = \frac{x-4}{x-6}$ on the interval $2 \leq x \leq 8$ has critical numbers at $x =$ _____

3. (a) If $f'(x)=g'(x)$ for all x , then $f(x)$ and $g(x)$ _____ (fill in)

(4) (b) If $g(3)$ is a global maximum of g , then $g'(3)=0$. True False (circle one)

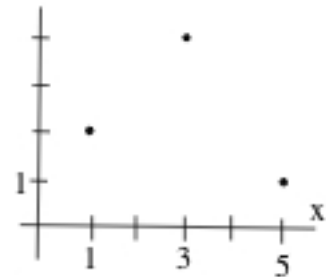
(c) If $f'(x)=g'(x)$ for all x , $f(2)=3$, $g(2)=7$, and $f(5)=8$, then $g(5) =$ _____

(d) If $f'(x) < 0$ for all x then the maximum of f on $[1, 5]$ occurs at $x =$ _____

4. Sketch the graph of $y=f(x)$ with the properties given in the table.

(3)

x	1	3	5
$f(x)$	2	4	1
$f'(x)$	1	0	-2
$f''(x)$	+	-	+



5. The graph of $y = f'(x)$ is shown and $f(0)=1$.

Sketch a good graph of the shape of f .

(4)

