

Math 151 Quiz #10
December 2, 2008

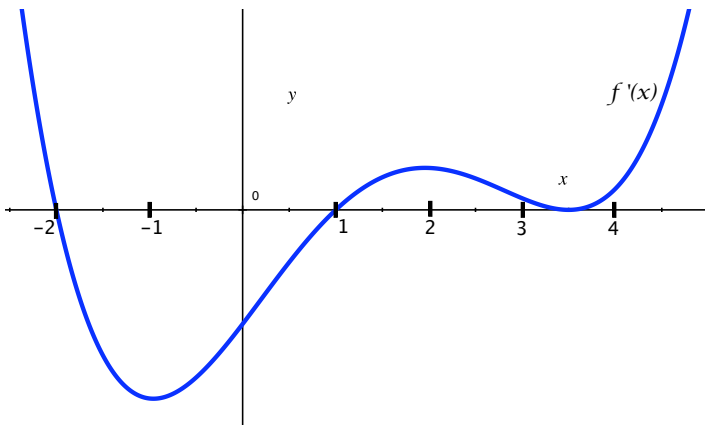
Name: _____

Show all work.

1. (3 pts.) Find the critical numbers of the function $g(x) = e^{x^3-6x}$.

2. (4 pts.) Find the absolute maximum and minimum **values** of $f(x) = \frac{4x}{x^2+4}$ on the domain $[0, 6]$.

3. The derivative function $f'(x)$ is shown below.



(a) (1 pts.) On what intervals is the function $f(x)$ increasing?

(b) (1 pts.) At what value(s) of x does $f(x)$ have a local maximum?

(c) (1 pts.) On what interval(s) is $f(x)$ concave upward?