Quiz 5

Name: ID:

1- The edge of a cube was found to be 30 cm with possible error in measurement of 0.1 cm. Find the maximum relative error in computing the volume of the cube.

2- If $f(1) = 10$ and $f'(x) \geq 2$ for $1 \leq x \leq 4$, find the smallest possible value of $f(4)$.

3- (a) Find the values of x at which $f(x) = x + \frac{1}{x}$ have local extrema.

(b) Find the absolute maximum and minimum values of the above f in $[0.5,2]$.

4- Find the intervals of concavity and the infliction points of $f(x) = 2x^2 - x + \ln x$.