Math 157 - Quiz 4

September 24, 2014

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (3 points) We will see later that the derivative of f(x) = 1/x is given by $f'(x) = -1/x^2$. Use this to find an equation of the line tangent to the graph of f at the point where x = 2.

2. (2 points) The table belows gives the values of the function g at selected points. Find a reasonable approximation for g'(1).

x	0.8	0.9	1.0	1.1	1.2
g(x)	1.67	1.85	2.03	2.21	2.38

3. Consider the function f whose graph is shown below.



Referring to the labeled points, find a point at which

- (a) f'(x) = 0
- (b) 0 < f'(x) < 1
- (c) f'(x) > 1
- (d) f(x) = 0
- (e) f'(x) < 0
- (f) (1 pt ex cred) f'(x) is not defined