

Quiz #10

Directions: Carefully read each question below and answer to the best of your ability in the space provided. You **MUST** show your work to receive full credit!

1. Consider the difference equation:

$$x_{n+1} = x_n^2.$$

- (a) (3 points) Find the fixed point(s) of the difference equation.

- (b) (2 points) Identify the fixed point(s) as locally stable or unstable.

2. (5 points) Find $f(x)$ given that

$$f'(x) = x^2 + e^{2x}, \quad f(0) = 0.$$

Name: _____

Section (circle one): 003 004

Question:	1	2	Total
Points:	5	5	10
Score:			