

Math 241 Fall 2017 Dr. Hadari
Classwork 6

Name: _____

Show all work and circle/box your final answer. All answers must be simplified unless stated otherwise. If you finish early, you may leave with my approval.

1. (*0 points*) Use linear approximation to approximate $\sqrt[3]{65}$

2. (*0 points*) The number of bacteria five hours after the start of experiment is 2000 and the number is increasing at a rate of 100 bacteria per hour. Approximate the number of bacteria five and a half hours after the start of experiment.

3. (*0 points*) Find the differential dy for the following:

(a) $y = x\sqrt{1-x^2}$

(b) $y = \cos(x^2)$