

APPM 1350

Name: _____

Fall 2021

Quiz 10

11/30/2021

Time Limit: 10 Minutes

Recitation Section: _____

1. On a certain patch in Montana, a group of rabbits exist. The initial population is 200 rabbits and the number doubles every 400 days.
 - (a) Write down the general differential equation that represents exponential growth and decay.
 - (b) Using the solution of the differential equation, solve for how large the population will be after 200 days. Simplify your answer so that it is in terms of $\sqrt{2}$.