Quiz 5.1 – Exponential Growth and Decay

1. (1 pt) alfredLibrary/AUCI/chapter5/lesson1/quiz-/comparison2pet.pg

A community had an initial population of 7000 people in 1990.

(a) First assume that the population decreased by a constant 75 people per year. Write a formula $P(t)$ that gives the population t years after 1990.

$P(t) =$ _____

(b) Now assume that the population decreased by a constant 9% per year. Write a formula $P(t)$ that gives the population t years after 1990.

$P(t) =$ _____

2. (1 pt) alfredLibrary/AUCI/chapter5/lesson1/quiz/interest1pet.pg

What is the balance after 1 year in an account containing $800 that earns a yearly nominal interest of 8% and is compounded

(a) annually? (once per year) $ _____
(b) weekly? (52 times per year) $ _____
(c) every minute? (525,600 times per year) $ _____
(d) continuously? $ _____

(Enter final answers only, not formulas. Round all answers to the nearest cent. Do not enter large numbers with commas.)