

Quiz #2: Monday, Sep 19

Name: _____

Recitation R02 (M)

An initial investment of 5000 grows at 20% per year.

1. (5 points) Write a function $P(t)$ that gives the value of the investment after t years.

2. (5 points) Find the value of the investment after 2 years.

Quiz #2: Monday, Sep 19

Name: _____

Recitation R02 (M)

The village of Northwesthampton, NY, has a population of 4000 in 2011 and grows at 25% per year.

1. (5 points) Write a function $P(t)$ that gives the Northwesthampton population t years after 2011.

2. (5 points) What is the population in 2013?

Quiz #2: Tuesday, Sep 20

Name: _____

Recitation R04 (Tu)

A colony of *S. aureus* contains 800 bacteria at noon and 3200 at 2 pm.

1. (5 points) Write a function $P(t)$ that gives the population of the colony t hours after noon.

2. (5 points) What is the population at 3 pm?

Quiz #2: Tuesday, Sep 20

Name: _____

Recitation R04 (Tu)

A 250-gram sample of the element calconium-273 contains only 10 grams of calconium after 2 days.

1. (5 points) Write a function $P(t)$ that gives the amount of calconium remaining after t days.

2. (5 points) How many grams are left after 3 days?

Quiz #2: Wednesday, Sep 21

Name: _____

Recitation R03 (W)

The value of a used car t years old is given by $P(t) = 15,000 \left(\frac{4}{5}\right)^t$.

1. (5 points) How much is the car worth initially? What is the percent rate of decrease?

2. (5 points) Find the value of the car after 2 years.

Quiz #2: Wednesday, Sep 21

Name: _____

Recitation R03 (W)

The population of a city is $1,600,000 \left(\frac{5}{4}\right)^t$, where t is the number of years after 2011.

1. (5 points) What is the population of the city in 2011? What is the percent growth rate?

2. (5 points) Find the population of the city in 2013.