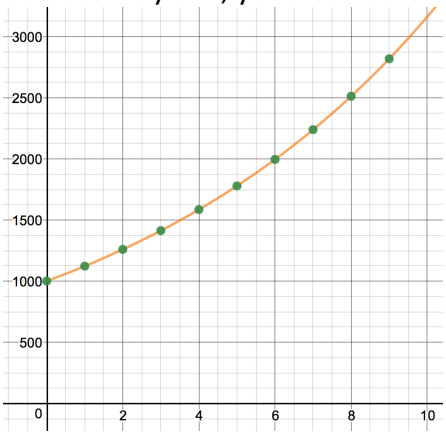
1. Identify the type of relationship (linear, quadratic, or exponential) of the following graph. Explain how you got your answer.

2. Walter grows hay on 1500 acres of land. Hay is harvested in the summer. The graph shows the number of acres Walter has left to harvest as the time passes in days.

a) Describe the relationship between the area Walter has left to harvest and the number of days.
b) Use the graph to estimate the area remaining after four days.
c) By how much does the area decrease each day?
d) What are suitable units for the rate of change of area remaining with respect to the number of days?
e) Predict the number of days required to complete the harvest.

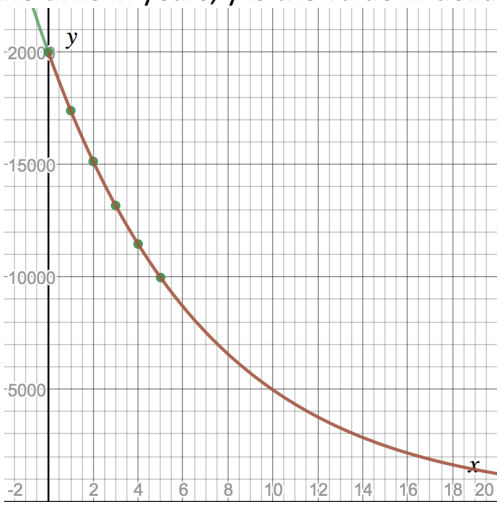
3. The following graph shows the growth of an investment over time. It can be modeled by the equation $y = 1000(1.122)^x$, where x is the time in years, y is the value in dollars.



What is the annual growth for this investment expressed as a percent?

What is the doubling time for this investment?

4. The following graph shows the depreciation of a car over time (value of the car decays over time). It can be modeled by the equation $y = 20000(0.87)^x$, where x is the time in years, y is the value in dollars.



What is the annual decay rate expressed as a percent?

What is the half-life for the value of the car?