# 7-1 Exponential Functions and Logarithms

## Lesson Quiz

**In 2000, the world population was 6.08 billion and was increasing at a rate of 1.21% each year.**

1. Write a function for world population. Does the function represent growth or decay?

2. Use a graph to predict the population in 2020.

**The value of a $3000 computer decreases about 30% each year.**

3. Write a function for the computer's value. Does the function represent growth or decay?

4. Use a graph to predict the value in 4 years.

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**In 2000, the world population was 6.08 billion and was increasing at a rate of 1.21% each year.**

1. Write a function for world population. Does the function represent growth or decay? $P(t) = 6.08(1.0121)^t$, growth

2. Use a graph to predict the population in 2020. $\approx$ 7.73 billion

**The value of a $3000 computer decreases about 30% each year.**

3. Write a function for the computer's value. Does the function represent growth or decay? $V(t) = 3000(0.7)^t$, decay

4. Use a graph to predict the value in 4 years. $\approx$ $720.30