

4. A bacteria culture triples in size every hour. Three hours from now, the culture has 8,000 bacteria.
 - a. Write an equation to model the situation.

 - b. Approximately how many bacteria are there after ten hours?

5. Steph and Tommy broke up. Upset, Steph climbed to the top of the 50 foot bridge and threw Tommy's class ring into the river with an initial velocity of 20 feet per second.
 - a. Write an equation to model the situation.

 - b. How long did it take for the ring to hit the water?

6. Monica feeds her dog 2 cups of dog food each day from a very large bag. On the 3rd day, she has 44 cups left in the bag.
 - a. Write an equation to model the situation.

 - b. How many cups are there after the 20th day?

7. The world population in 2000 was approximately 6.08 billion. The annual rate of increase was about 1.26%.
 - a. Write an equation to model the situation.

 - b. Estimate the world's population in year 2014.