

Logs and Exponentials MORE PRACTICE: Basic Exponential Equations

Label the following functions as exponential growth or decay.

1. $y = 7(2)^x$

2. $y = 3(0.4)^x$

3. $y = 9\left(\frac{1}{2}\right)^{-x}$

4. Write an exponential function that goes through (0, 2) and (3, 20).

5. Write an exponential function that goes through (0, 6) and (5, 15).

6. A water balloon explodes near your head. It starts out with a 2 inch diameter. As it blows up, the diameter of the water splash doubles every second. Write an equation that models this situation. What is the diameter of the splash in 5 seconds?

7. The population of rabbits in a nature preserve was 15 in 2000. The population grew exponentially to 645 in 2010. Write an equation that models the situation. What will the population be in 2020?