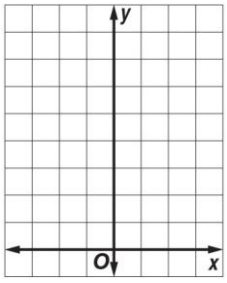
NAME _____ DATE _____ PERIOD _____

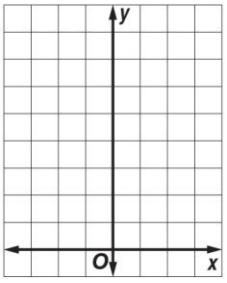
7-1 Practice
Graphing Exponential Functions

Graph each function. State the domain and range.

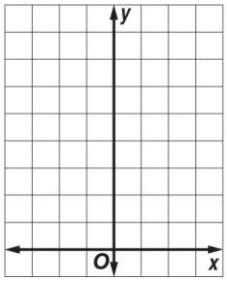
1. $y = 1.5(2)^x$



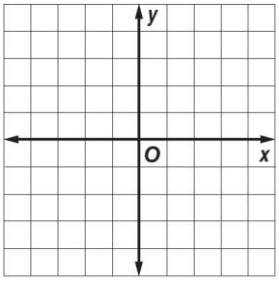
2. $y = 4(3)^x$



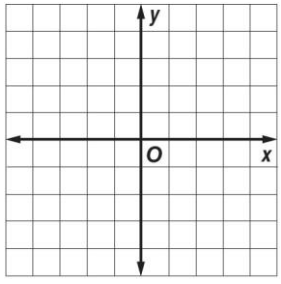
3. $y = 3(0.5)^x$



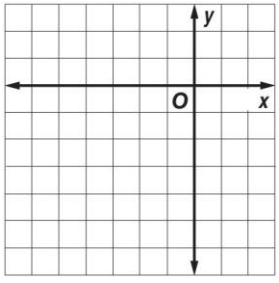
4. $y = 5\left(\frac{1}{2}\right)^x - 8$



5. $y = -2\left(\frac{1}{4}\right)^{x-3}$



6. $y = \frac{1}{2}(3)^{x+4} - 5$



7. BIOLOGY The initial number of bacteria in a culture is 12,000. The culture doubles each day.

a. Write an exponential function to model the population y of bacteria after x days.

b. How many bacteria are there after 6 days?

8. EDUCATION A college with a graduating class of 4000 students in the year 2008 predicts that its graduating class will grow 5% per year. Write an exponential function to model the number of students y in the graduating class t years after 2008.