Algebra I

Review 7.4 & 7.5

Name _____

Write a rule for the function.

1.

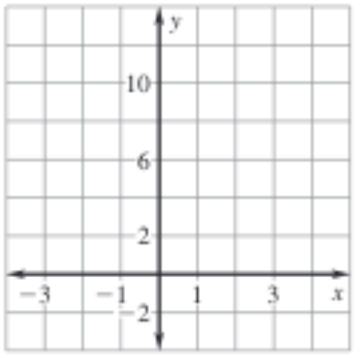
x	-2	-1	0	1	2
y	$\frac{1}{121}$	$\frac{1}{11}$	1	11	121

2.

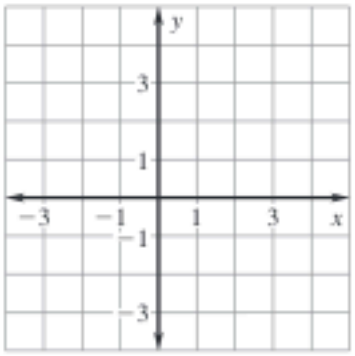
x	-1	0	1	2	3
y	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	1	2

Graph the function and identify its domain and range.

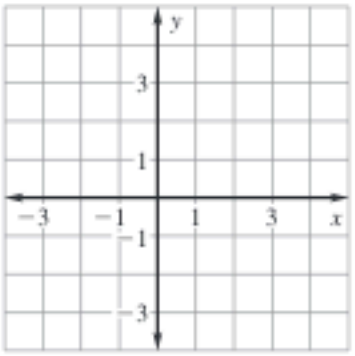
3. $y = 12^x$



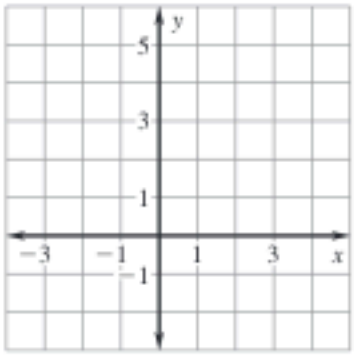
4. $y = (1.75)^x$



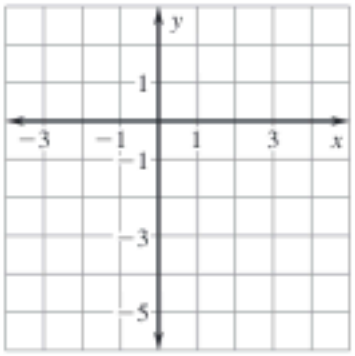
5. $y = (3.1)^x$



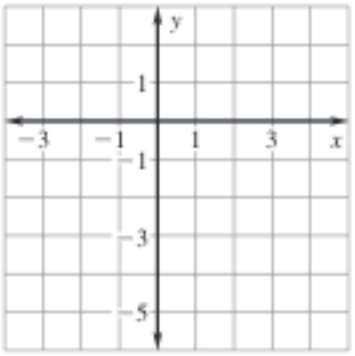
6. $y = \left(\frac{9}{2}\right)^x$



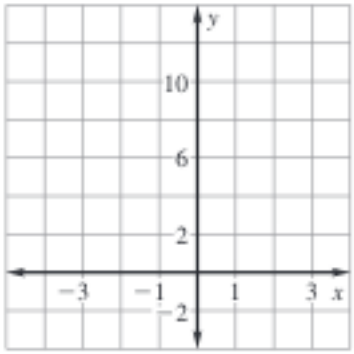
7. $y = -5^x$



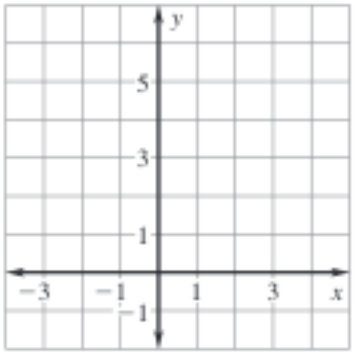
8. $y = -\left(\frac{3}{2}\right)^x$



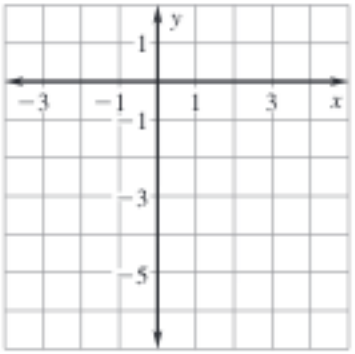
9. $y = 5 \cdot 2^x$



10. $y = 2 \cdot \left(\frac{4}{3}\right)^x$

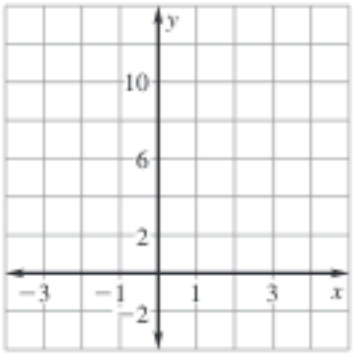


11. $y = -3 \cdot 2^x$

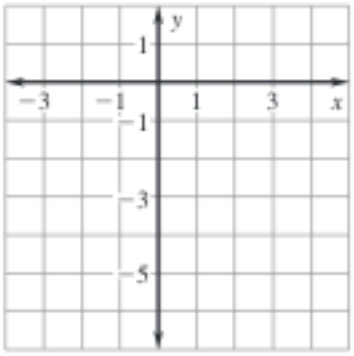


Graph the function. Compare the graph with the graph of $y = 6^x$.

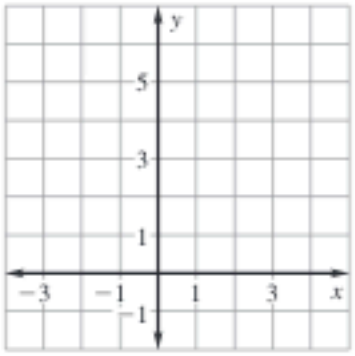
12. $y = 2 \cdot 6^x$



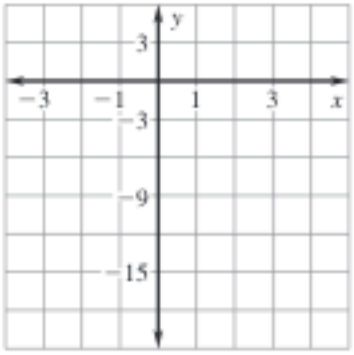
13. $y = -6^x$



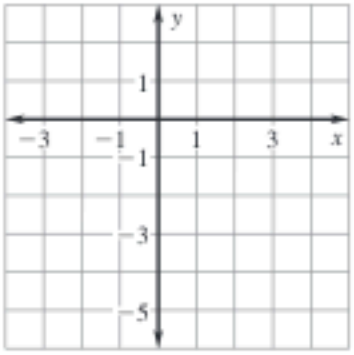
14. $y = \frac{1}{2} \cdot 6^x$



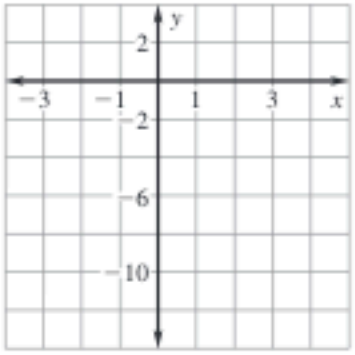
15. $y = -3 \cdot 6^x$



16. $y = -\frac{1}{4} \cdot 6^x$



17. $y = -\frac{3}{2} \cdot 6^x$



18. Investments You deposit \$500 in a savings account that earns 2.5% interest compounded yearly. Find the balance in the account after the given amounts of time.

a. 1 year

b. 5 years

c. 20 years

LESSON
7.5

Tell whether the table represents an exponential function. If so, write a rule for the function.

1.

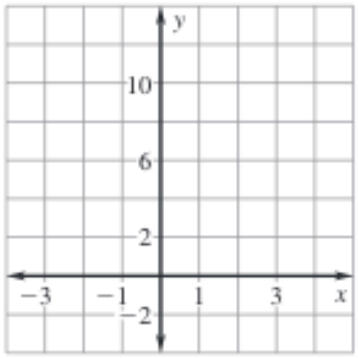
x	-2	-1	0	1	2
y	25	5	1	$\frac{1}{5}$	$\frac{1}{25}$

2.

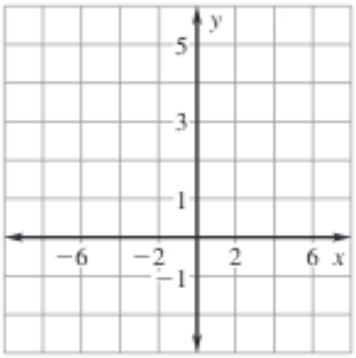
x	-1	0	1	2	3
y	1	4	7	10	13

Graph the function and identify its domain and range.

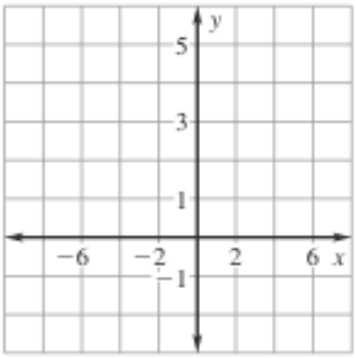
3. $y = \left(\frac{1}{12}\right)^x$



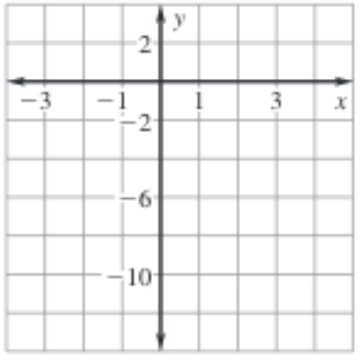
4. $y = \left(\frac{7}{8}\right)^x$



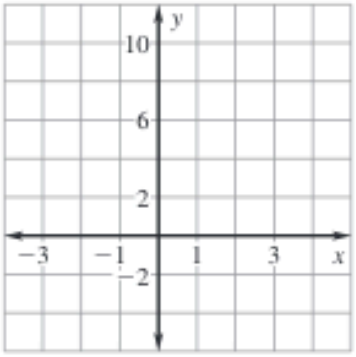
5. $y = \left(\frac{8}{9}\right)^x$



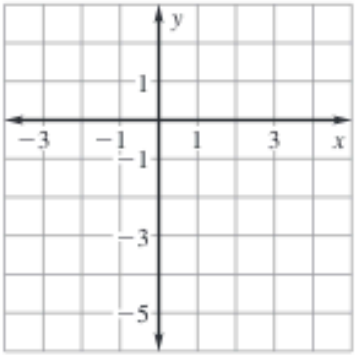
6. $y = -\left(\frac{1}{8}\right)^x$



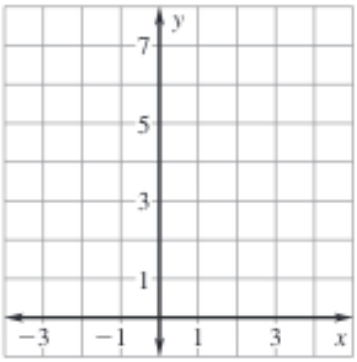
7. $y = 2 \cdot \left(\frac{1}{5}\right)^x$



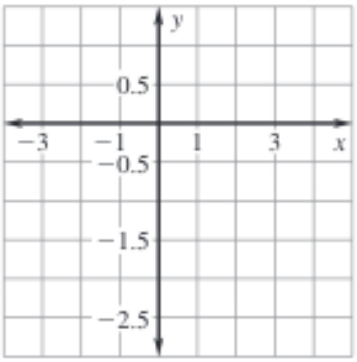
8. $y = -2 \cdot \left(\frac{2}{3}\right)^x$



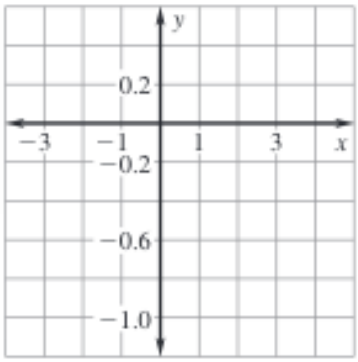
9. $y = 2 \cdot (0.25)^x$



10. $y = -0.5 \cdot (0.3)^x$

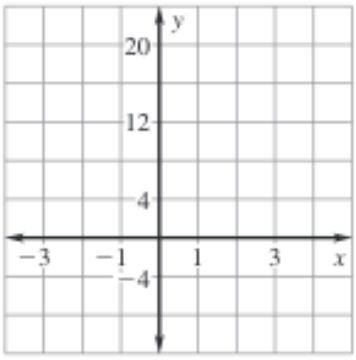


11. $y = -0.2 \cdot (0.2)^x$

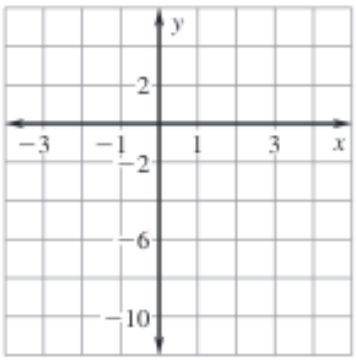


Graph the function. Compare the graph with the graph of $y = \left(\frac{1}{8}\right)^x$.

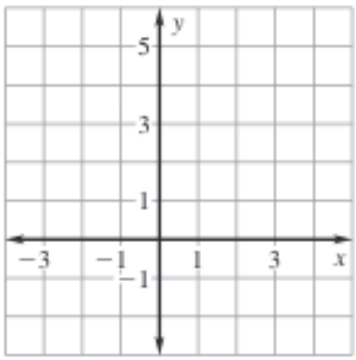
12. $y = 2 \cdot \left(\frac{1}{8}\right)^x$



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

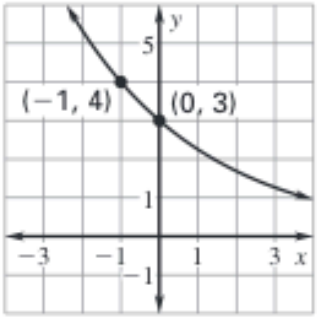


14. $y = \frac{1}{4} \cdot \left(\frac{1}{8}\right)^x$

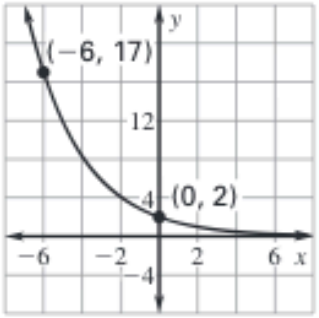


Tell whether the graph represents exponential growth or exponential decay. Then write a rule for the function.

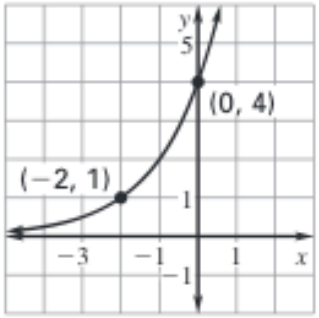
15.



16.



17.



18. Computer Value You buy a computer for $3000. It depreciates at the rate of 20% per year. Find the value of the computer after the given number of years.

a. 1 year

b. 3 years

c. 5 years