

TEKS 2A.11.C



LESSON

7-1

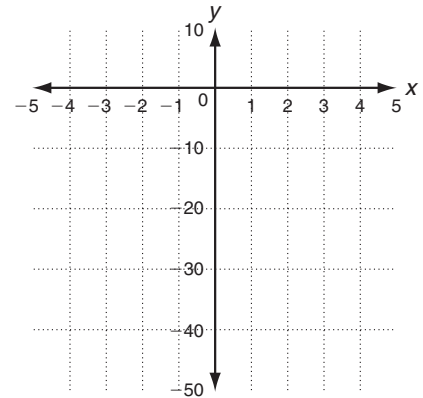
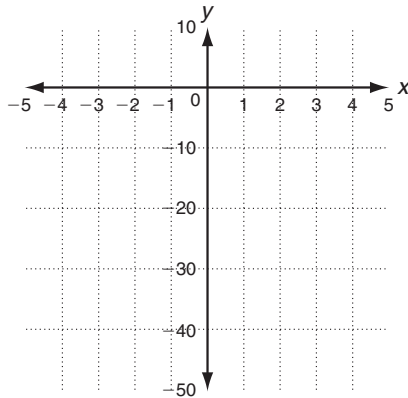
Practice B

Exponential Functions, Growth, and Decay

Tell whether the function shows growth or decay. Then graph.

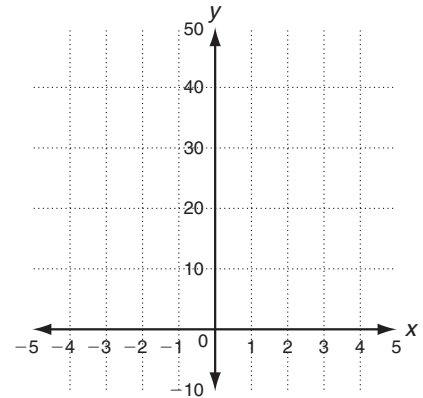
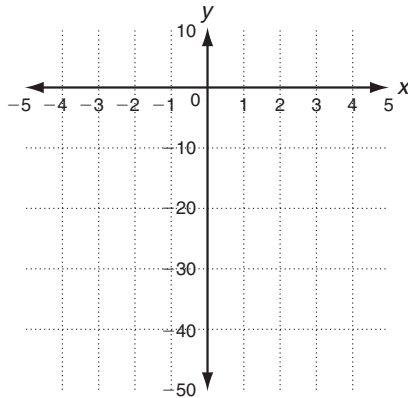
1. $g(x) = -(2)^x$

2. $h(x) = -0.5(0.2)^x$



3. $j(x) = -2(0.5)^x$

4. $p(x) = 4(1.4)^x$



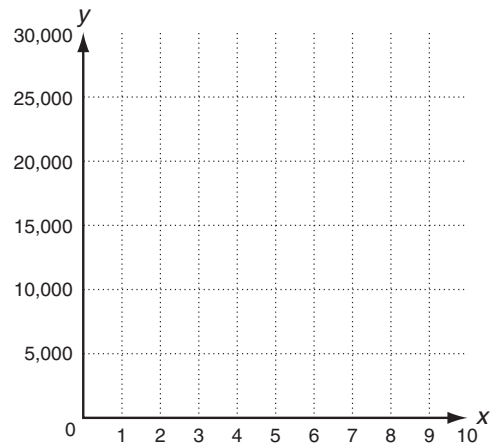
Solve.

5. A certain car depreciates about 15% each year.

a. Write a function to model the depreciation in value for a car valued at \$20,000.

b. Graph the function.

c. Suppose the car was worth \$20,000 in 2005. What is the first year that the value of this car will be worth less than half of that value?





Practice B

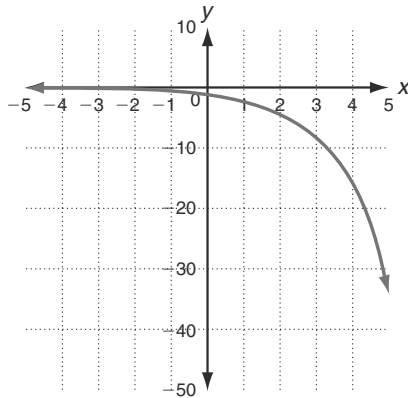
Exponential Functions, Growth, and Decay

Tell whether the function shows growth or decay. Then graph.

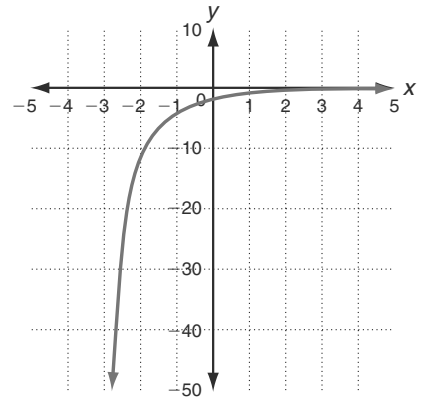
1. $g(x) = -(2)^x$

2. $h(x) = -0.5(0.2)^x$

Growth



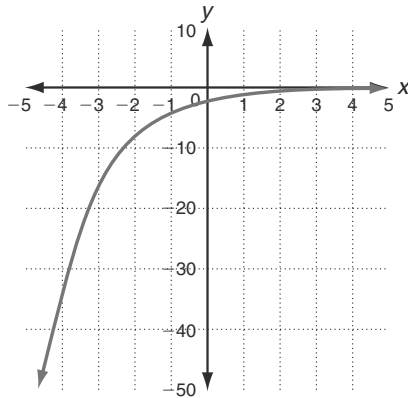
Decay



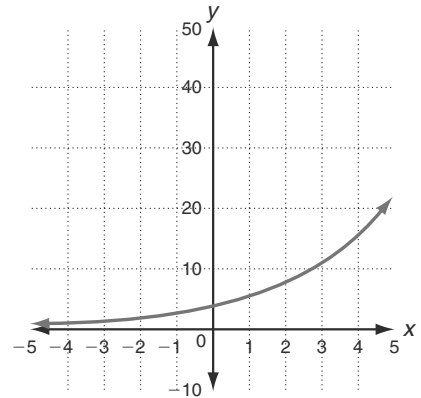
3. $j(x) = -2(0.5)^x$

4. $p(x) = 4(1.4)^x$

Decay



Growth



Solve.

5. A certain car depreciates about 15% each year.

a. Write a function to model the depreciation in value for a car valued at \$20,000.

$y = 20,000(0.85)^x$

b. Graph the function.

c. Suppose the car was worth \$20,000 in 2005. What is the first year that the value of this car will be worth less than half of that value?

2010

