

## Exponential Functions

Evaluate each function at the given value.

1)  $f(x) = \frac{1}{3} \cdot 6^x$  at  $x = 2$

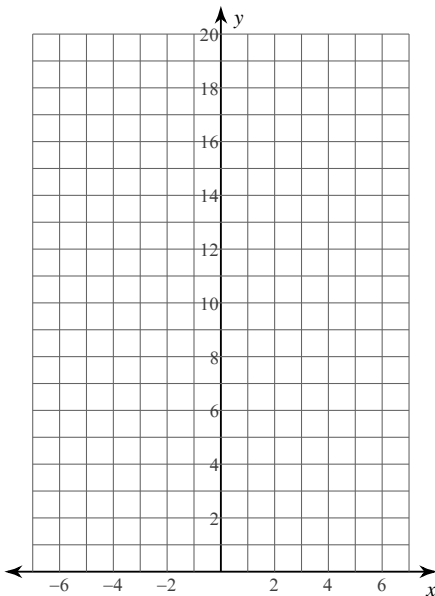
2)  $f(n) = 10 \cdot 2^n$  at  $n = 5$

3)  $f(n) = 10 \cdot 2^n$  at  $n = -2$

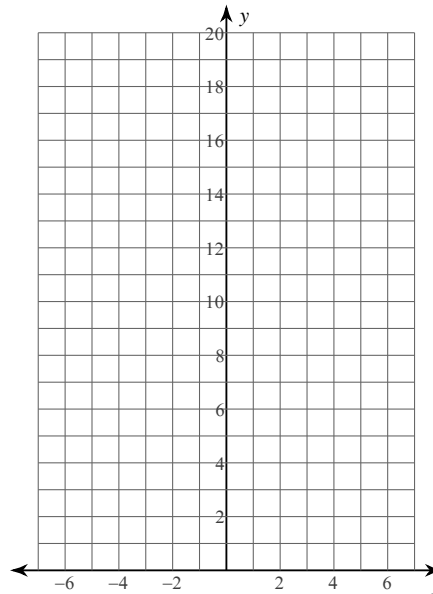
4)  $g(x) = \frac{1}{5} \cdot \left(\frac{1}{3}\right)^x$  at  $x = 3$

Sketch the graph of each function.

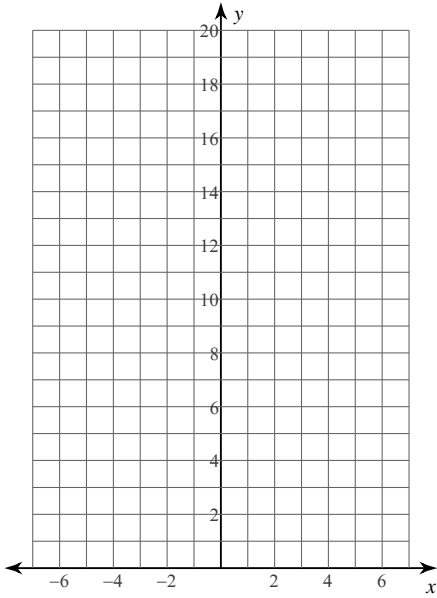
5)  $f(x) = 4 \cdot 2^x$



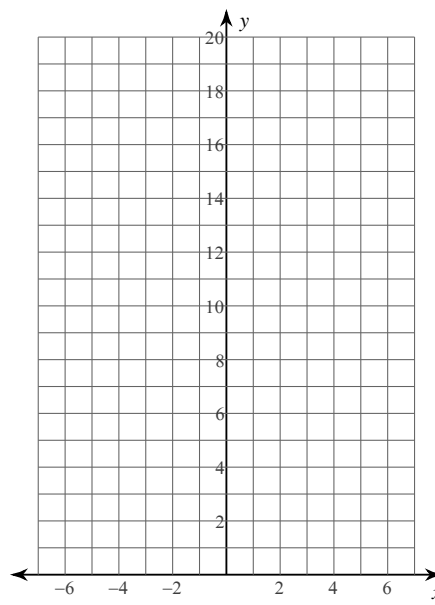
6)  $f(x) = 4 \cdot \left(\frac{1}{2}\right)^x$



$$7) f(x) = \frac{1}{2} \cdot 3^x$$

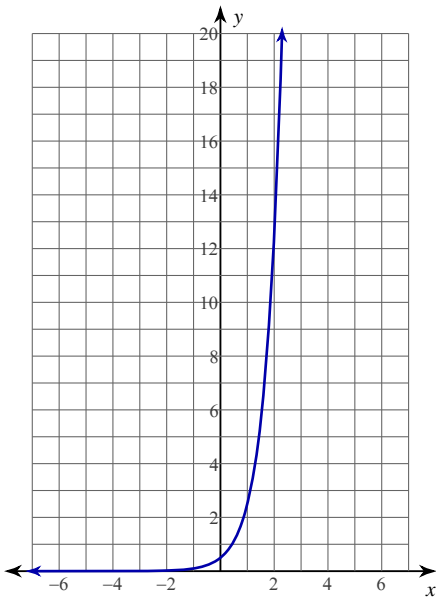


$$8) f(x) = 5 \cdot \left(\frac{1}{2}\right)^x$$

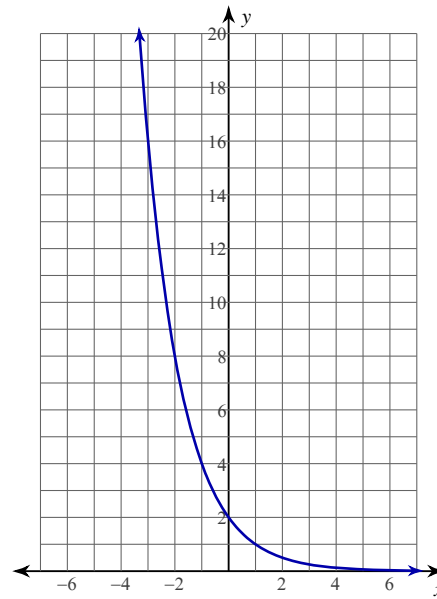


**Write an equation for each graph.**

9)



10)



## Exponential Functions

Evaluate each function at the given value.

1)  $f(x) = \frac{1}{3} \cdot 6^x$  at  $x = 2$

12

2)  $f(n) = 10 \cdot 2^n$  at  $n = 5$

320

3)  $f(n) = 10 \cdot 2^n$  at  $n = -2$

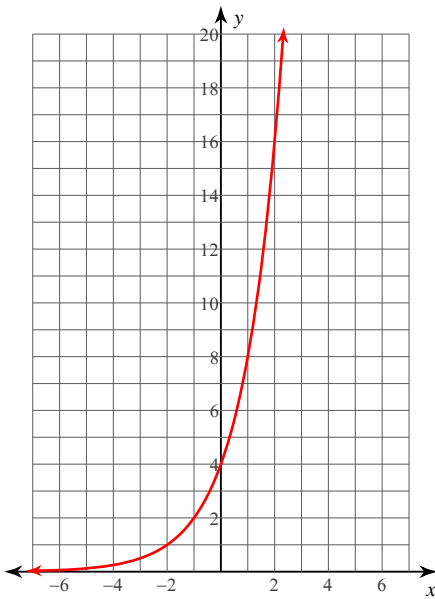
 $\frac{5}{2}$ 

4)  $g(x) = \frac{1}{5} \cdot \left(\frac{1}{3}\right)^x$  at  $x = 3$

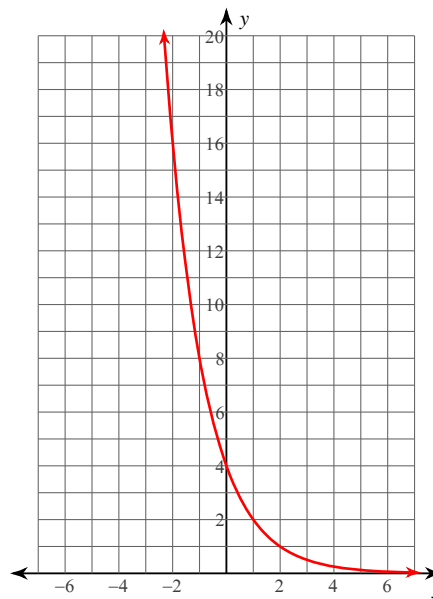
 $\frac{1}{135}$ 

Sketch the graph of each function.

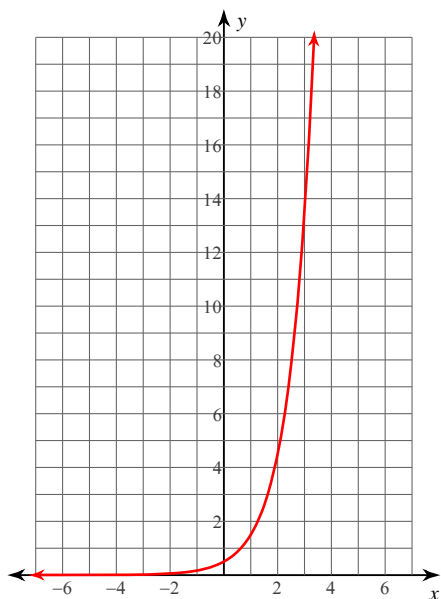
5)  $f(x) = 4 \cdot 2^x$



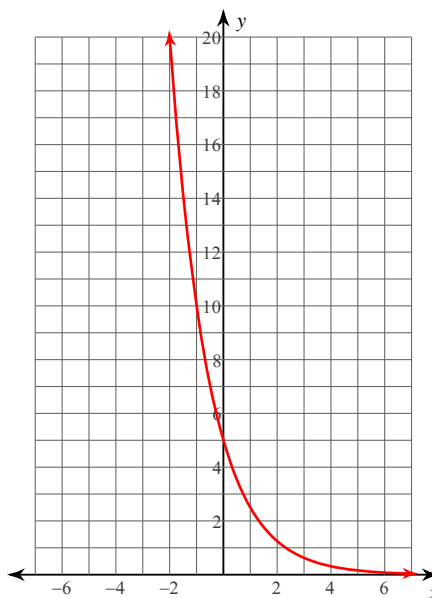
6)  $f(x) = 4 \cdot \left(\frac{1}{2}\right)^x$



$$7) f(x) = \frac{1}{2} \cdot 3^x$$

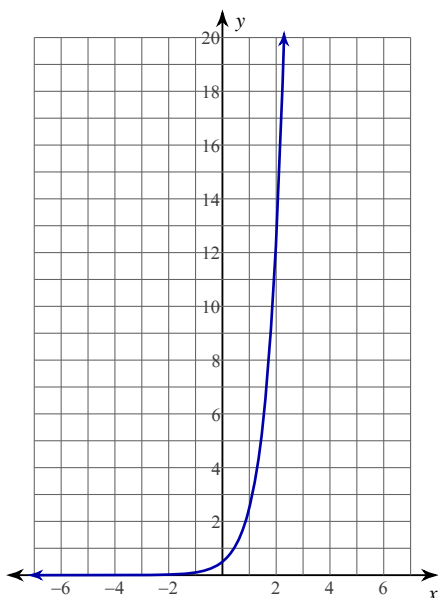


$$8) f(x) = 5 \cdot \left(\frac{1}{2}\right)^x$$



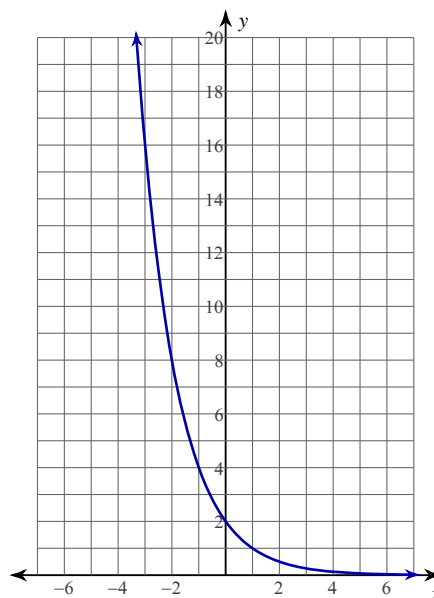
Write an equation for each graph.

9)



$$y = \frac{1}{2} \cdot 5^x$$

10)



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