

# Exponential Functions ... Set 1

## Exponential Functions

Evaluate each function at the given value.

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

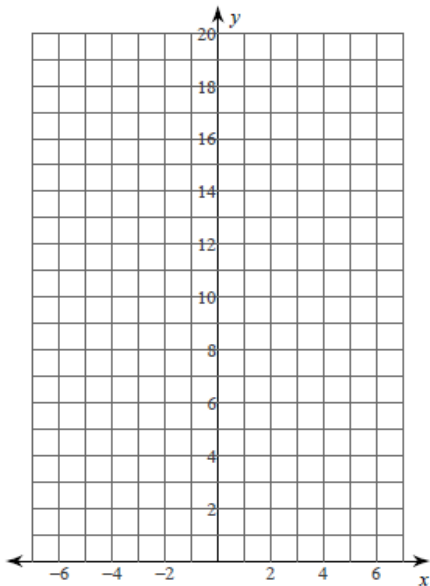
2)  $f(n) = 10 \cdot 2^n$  at  $n = 5$

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

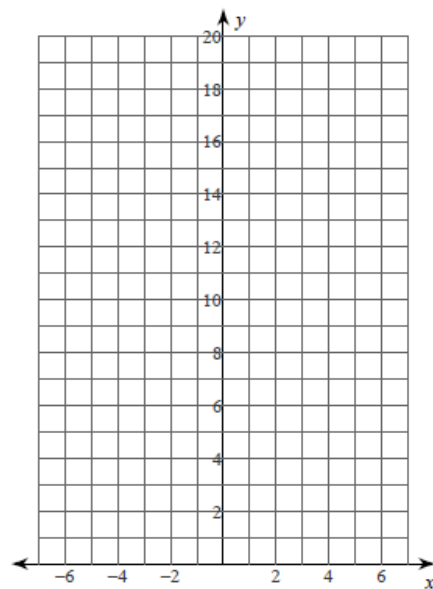
4)  $g(x) = \frac{1}{5} \cdot \left(\frac{1}{3}\right)^x$  at  $x = 3$

Sketch the graph of each function.

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



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



# Exponential Functions ... Set 1

## Answers

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  $n = -2$

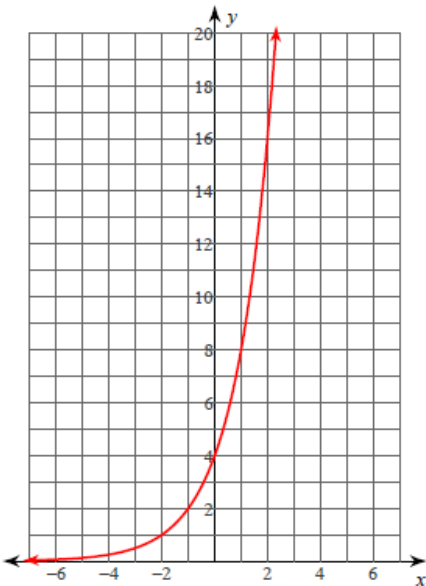
$\frac{5}{2}$

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

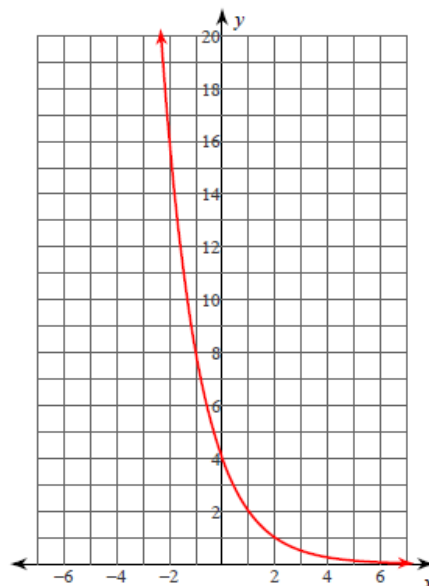
$\frac{1}{135}$

Sketch the graph of each function.

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

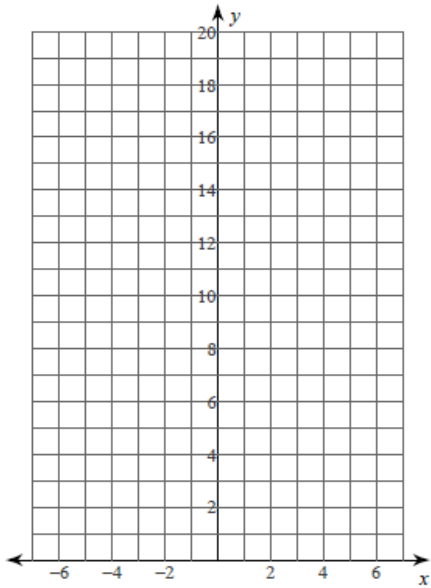


6)  $f(x) = 4 \cdot \left(\frac{1}{2}\right)^x$

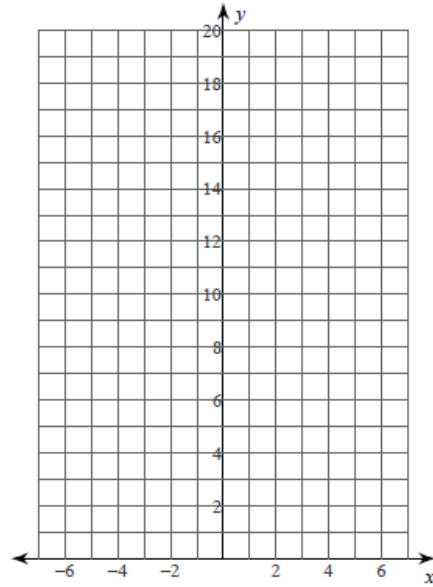


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7)  $f(x) = \frac{1}{2} \cdot 3^x$

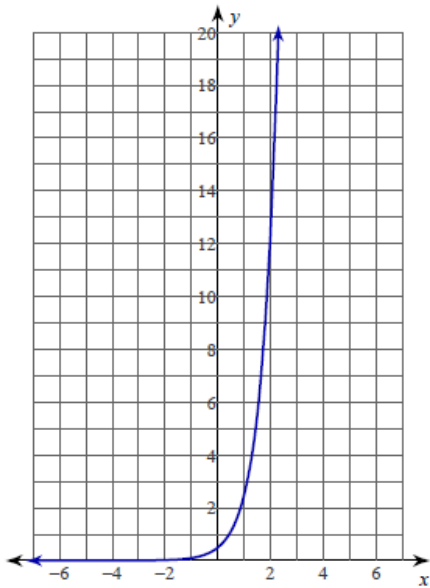


8)  $f(x) = 5 \cdot \left(\frac{1}{2}\right)^x$

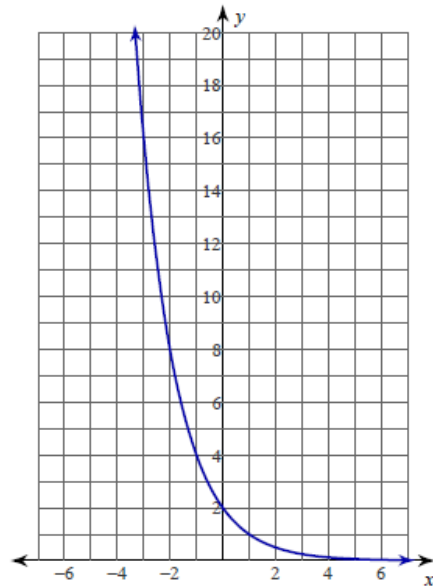


**Write an equation for each graph.**

9)



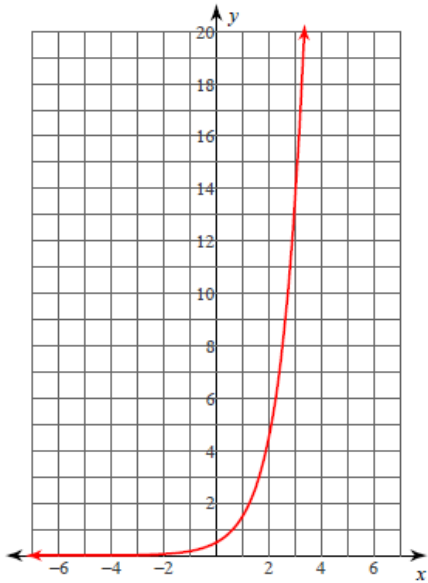
10)



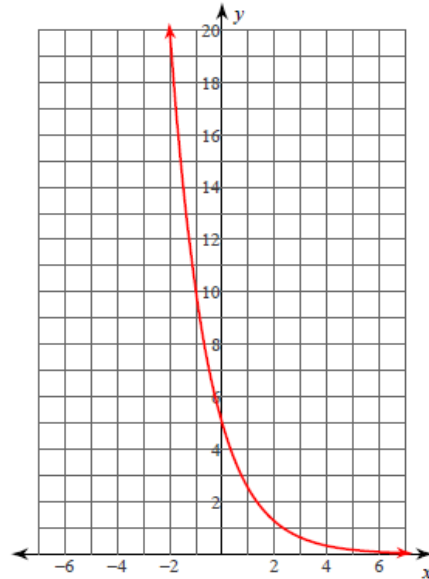
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## Answers

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

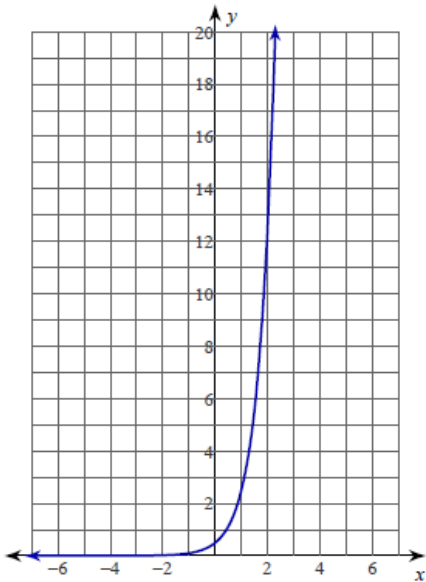


8)  $f(x) = 5 \cdot \left(\frac{1}{2}\right)^x$



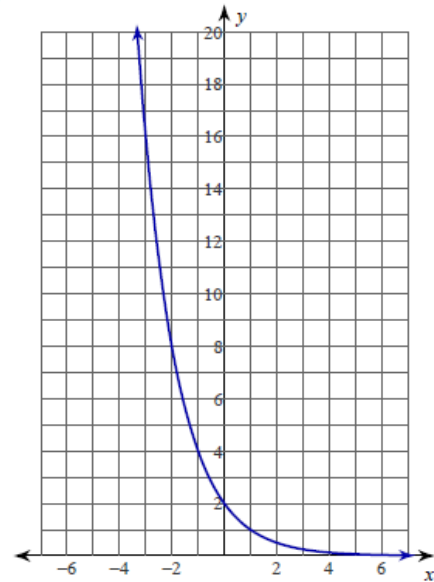
Write an equation for each graph.

9)



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

10)



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