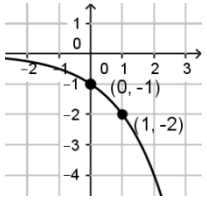
Name: Date: Period:

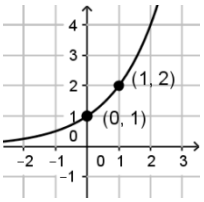
Practice Worksheet: Graphing Exponential Functions

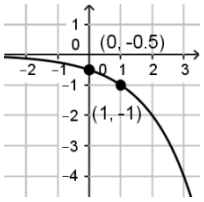
Without a calculator, match each function with its graph.

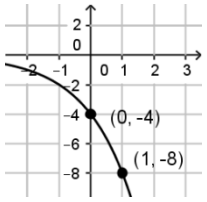
_____1] $f(x) = 2^x$ _____2] $f(x) = -2^x$ _____3] $f(x) = 4(2)^x$

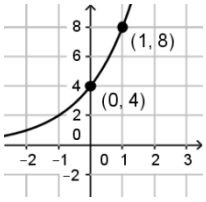
_____4] $f(x) = \frac{1}{2}(2)^x$ _____5] $f(x) = -\frac{1}{2}(2)^x$ _____6] $f(x) = -4(2)^x$

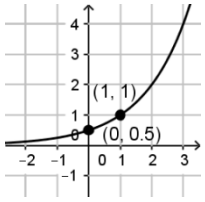
A. 

B. 

C. 

D. 

E. 

F. 

Graph without a calculator. Label the two anchor points and dash in the asymptote.

7] $f(x) = 3(2)^{x+2} - 1$

Growth or decay (parent)? Domain:

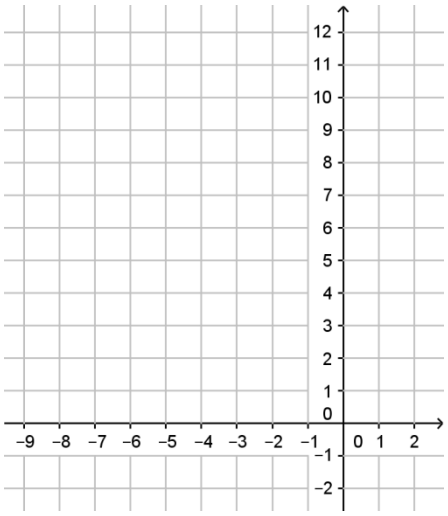
Asymptote: Range:

Transformations:

(0,)			
(1,)			
(-1,)			

Coordinates of two more guide points:

(____, ____) and (____, ____)



8] $f(x) = -4^{x+1} + 3$

Growth or decay (parent)? Domain:

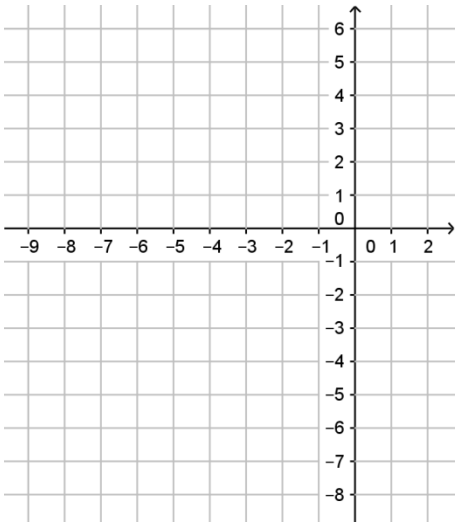
Asymptote: Range:

Transformations:

(0,)			
(1,)			
(-1,)			

Coordinates of two more guide points:

(____, ____) and (____, ____)



9] $f(x) = 3\left(\frac{1}{4}\right)^{x-2} + 1$

Growth or decay (parent)? Domain:

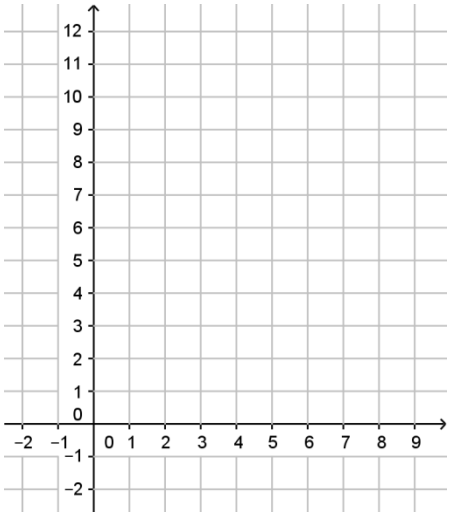
Asymptote: Range:

Transformations:

(0,)
(1,)
(-1,)

Coordinates of two more guide points:

(____, ____) and (____, ____)



10] $f(x) = 2^{x-3} + 2$

Growth or decay (parent)? Domain:

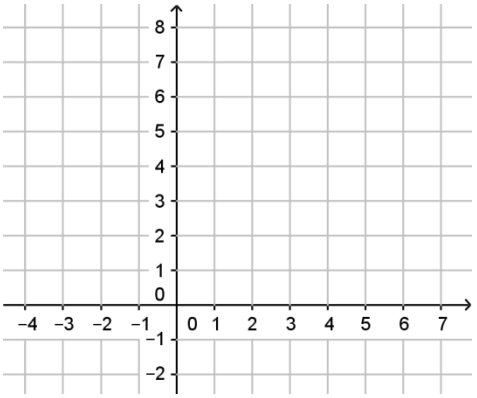
Asymptote: Range:

Transformations:

(0,)
(1,)
(-1,)

Coordinates of two more guide points:

(____, ____) and (____, ____)



11] $f(x) = -3^x + 1$

Growth or decay (parent)? Domain:

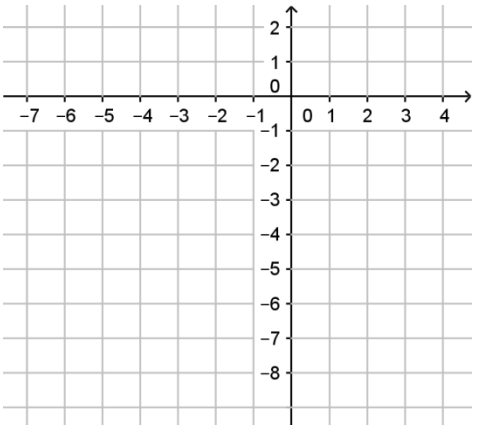
Asymptote: Range:

Transformations:

(0,)
(1,)
(-1,)

Coordinates of two more guide points:

(____, ____) and (____, ____)



12] $f(x) = -\left(\frac{1}{2}\right)^x - 3$

Growth or decay (parent)? Domain:

Asymptote: Range:

Transformations:

(0,)
(1,)
(-1,)

Coordinates of two more guide points:

(____, ____) and (____, ____)