

## Graphing Exponential Functions with Transformations

1.)  $f(x) = \frac{1}{2}(2)^{x+3} - 4$

Type: Growth    Decay

Parent Function: \_\_\_\_\_

Helper points:

$x$	$y$

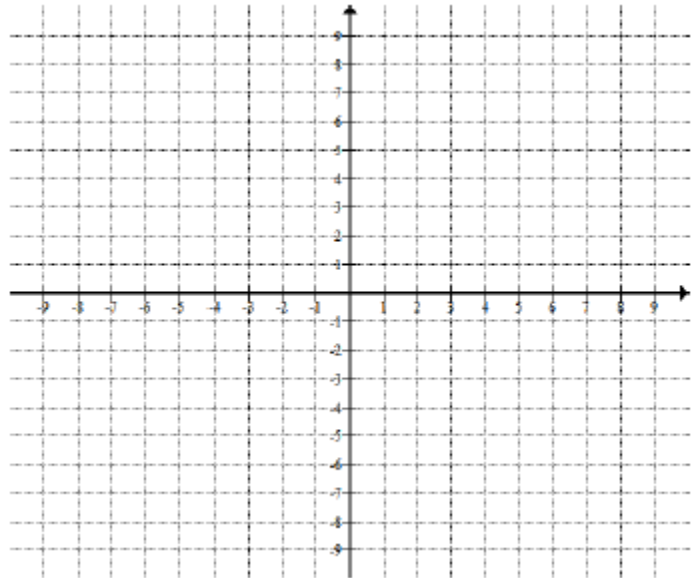
Asymptote: \_\_\_\_\_

Transformations:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Domain: \_\_\_\_\_ Range: \_\_\_\_\_

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

Parent Function: \_\_\_\_\_

Helper points:

$x$	$y$

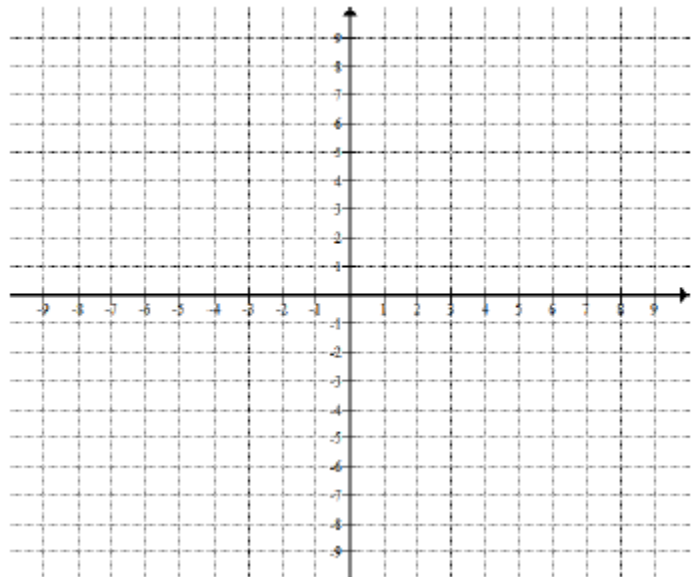
Asymptote: \_\_\_\_\_

Transformations:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Domain: \_\_\_\_\_ Range: \_\_\_\_\_

### Graphing Exponential Functions with Transformations

3.)  $f(x) = -(2)^{x-4} + 3$

Parent Function: \_\_\_\_\_

Helper points:

$x$	$y$

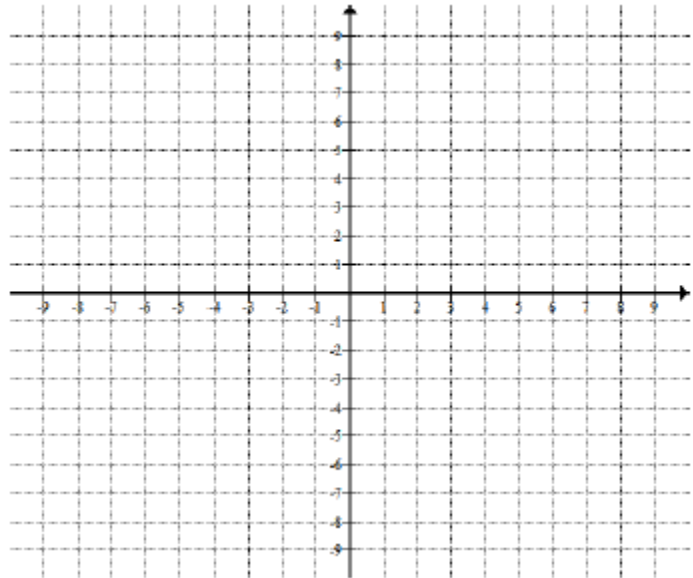
Asymptote: \_\_\_\_\_

Transformations:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Domain: \_\_\_\_\_ Range: \_\_\_\_\_

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

Parent Function: \_\_\_\_\_

Helper points:

$x$	$y$

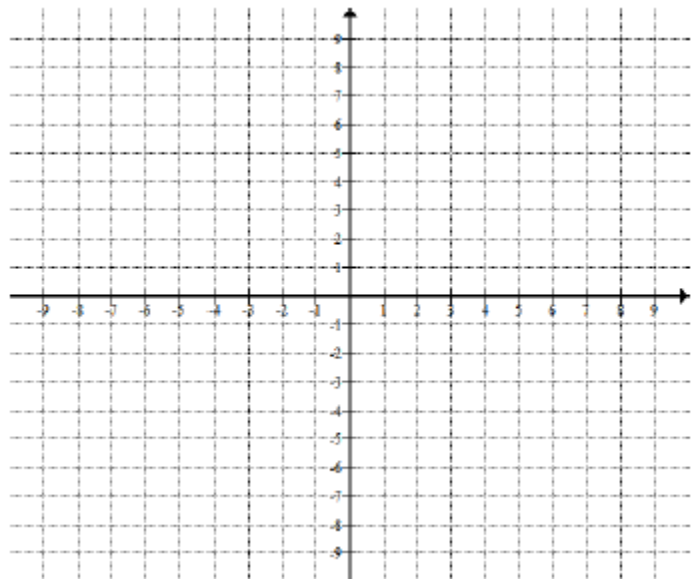
Asymptote: \_\_\_\_\_

Transformations:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Domain: \_\_\_\_\_ Range: \_\_\_\_\_