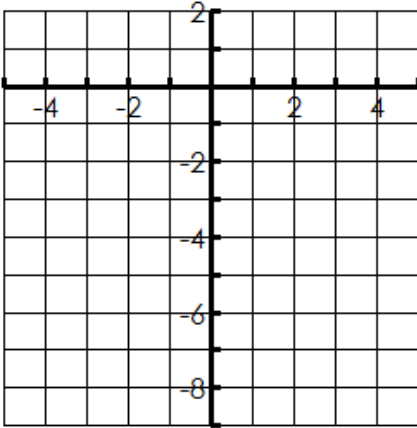


## Graphing and Characteristics of Exponential Equations

Name \_\_\_\_\_ Date \_\_\_\_\_

1.  $y = -5^x - 3$



Transformations: \_\_\_\_\_

State 3 points on Graph: \_\_\_\_\_

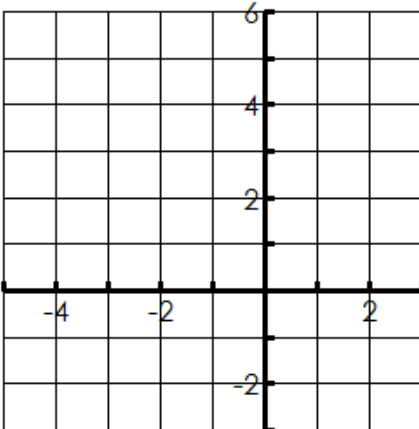
Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Asymptote: \_\_\_\_\_ Increasing or Decreasing

X-intercept: \_\_\_\_\_ Y-intercept: \_\_\_\_\_

End Behavior: As  $x \rightarrow \_\_\_\_\_\_ , f(x) \rightarrow \_\_\_\_\_\_$   
 As  $x \rightarrow \_\_\_\_\_\_ , f(x) \rightarrow \_\_\_\_\_\_$

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



Transformations: \_\_\_\_\_

State 3 points on Graph: \_\_\_\_\_

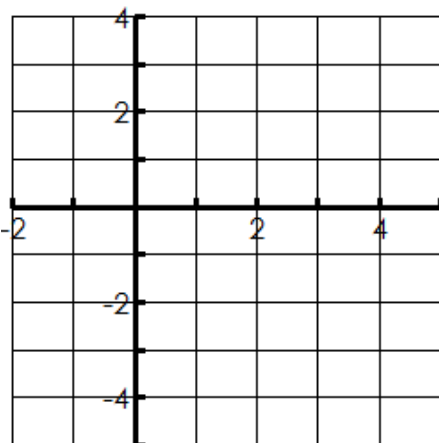
Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Asymptote: \_\_\_\_\_ Increasing or Decreasing

X-intercept: \_\_\_\_\_ Y-intercept: \_\_\_\_\_

End Behavior: As  $x \rightarrow \_\_\_\_\_\_ , f(x) \rightarrow \_\_\_\_\_\_$   
 As  $x \rightarrow \_\_\_\_\_\_ , f(x) \rightarrow \_\_\_\_\_\_$

3.  $y = 4^{x-2} - 3$



Transformations: \_\_\_\_\_ :: \_\_\_\_\_

State 3 points on Graph: \_\_\_\_\_

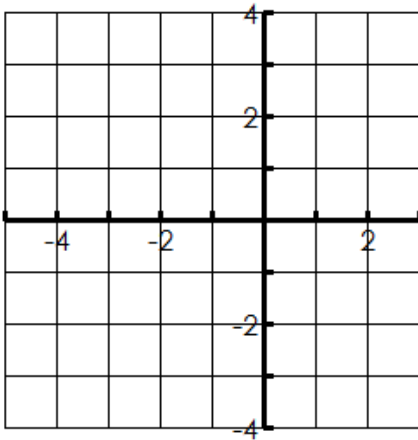
Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Asymptote: \_\_\_\_\_ Increasing or Decreasing

X-intercept: \_\_\_\_\_ Y-intercept: \_\_\_\_\_

End Behavior: As  $x \rightarrow \_\_\_\_\_\_ , f(x) \rightarrow \_\_\_\_\_\_$   
 As  $x \rightarrow \_\_\_\_\_\_ , f(x) \rightarrow \_\_\_\_\_\_$

4.  $y = -2^{x+1} + 1$



Transformations: \_\_\_\_\_

State 3 points on Graph: \_\_\_\_\_

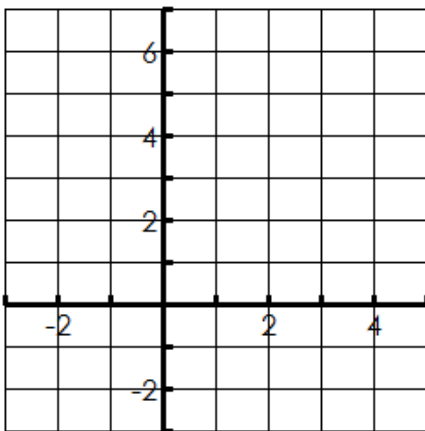
Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Asymptote: \_\_\_\_\_ Increasing or Decreasing

X-intercept: \_\_\_\_\_ Y-intercept: \_\_\_\_\_

End Behavior: As  $x \rightarrow$  \_\_\_\_\_,  $f(x) \rightarrow$  \_\_\_\_\_  
 As  $x \rightarrow$  \_\_\_\_\_,  $f(x) \rightarrow$  \_\_\_\_\_

5.  $y = 3^{x-3} + 1$



Transformations: \_\_\_\_\_

State 3 points on Graph: \_\_\_\_\_

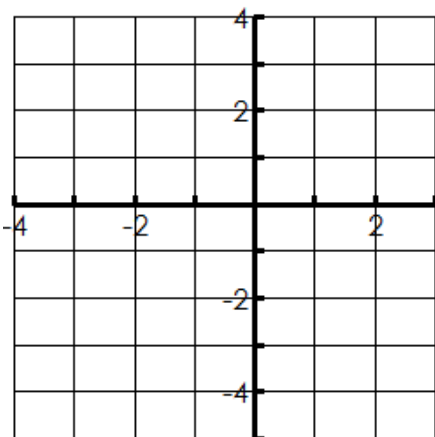
Domain: \_\_\_\_\_ Range: \_\_\_\_\_

Asymptote: \_\_\_\_\_ Increasing or Decreasing

X-intercept: \_\_\_\_\_ Y-intercept: \_\_\_\_\_

End Behavior: As  $x \rightarrow$  \_\_\_\_\_,  $f(x) \rightarrow$  \_\_\_\_\_  
 As  $x \rightarrow$  \_\_\_\_\_,  $f(x) \rightarrow$  \_\_\_\_\_

6.  $y = \left(\frac{1}{2}\right)^{x+1} - 2$



Transformations: \_\_\_\_\_

State 3 points on Graph: \_\_\_\_\_

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

Asymptote: \_\_\_\_\_ Increasing or Decreasing

X-intercept: \_\_\_\_\_ Y-intercept: \_\_\_\_\_

End Behavior: As  $x \rightarrow$  \_\_\_\_\_,  $f(x) \rightarrow$  \_\_\_\_\_  
 As  $x \rightarrow$  \_\_\_\_\_,  $f(x) \rightarrow$  \_\_\_\_\_