

Name: _____

Date: _____

Graphing and Characteristics of Exponential Equations

Transformations:

$$y = a(b)^{x-h} + k$$

Domain:

Range:

Asymptote:

X-Int:

Y-Int:

Increasing or Decreasing

End Behavior:

$x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$

$x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$

1. $y = -5^x$

Transformations: _____

State 3 points on Graph _____

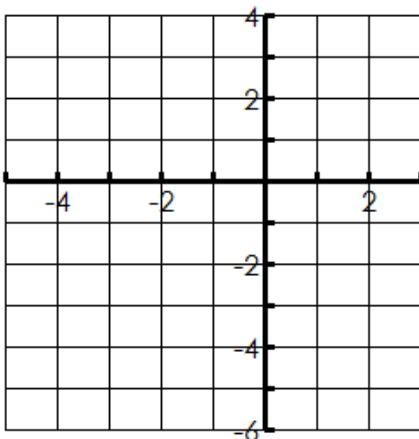
Domain _____ Range _____

Asymptote _____ Increasing or Decreasing

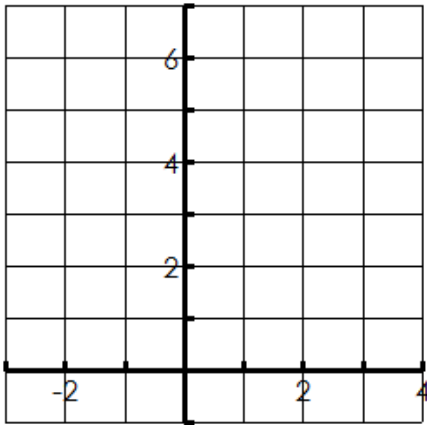
X-intercept _____ Y-intercept _____

End Behavior $x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$

$x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$



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



Transformations: _____

State 3 points on Graph _____

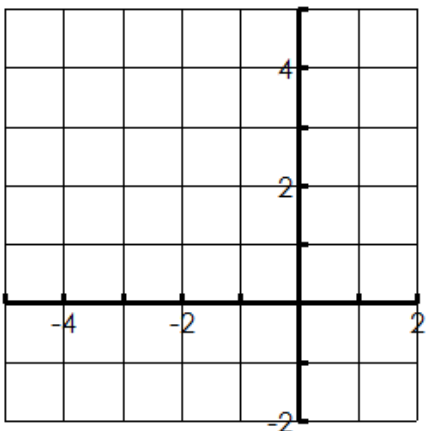
Domain _____ Range _____

Asymptote _____ Increasing or Decreasing

X-intercept _____ Y-intercept _____

End Behavior $x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$
 $x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$

3. $y = 2^{x+1}$



Transformations: _____

State 3 points on Graph _____

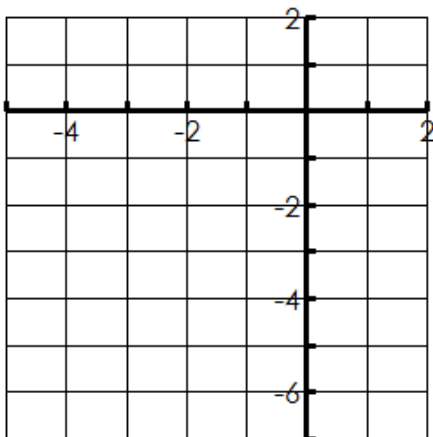
Domain _____ Range _____

Asymptote _____ Increasing or Decreasing

X-intercept _____ Y-intercept _____

End Behavior $x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$
 $x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$

4. $y = -3^{x+1} - 2$



Transformations: _____

State 3 points on Graph _____

Domain _____ Range _____

Asymptote _____ Increasing or Decreasing

X-intercept _____ Y-intercept _____

End Behavior $x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$
 $x \rightarrow \text{_____}, f(x) \rightarrow \text{_____}$