
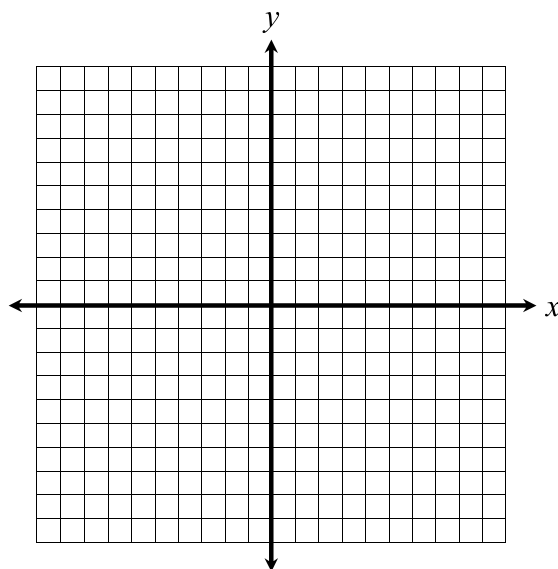


Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples
<p>EXPONENTIAL <i>Parent Function</i></p> 	<ul style="list-style-type: none"> If $b > 1$, the function is an _____ and is _____. If $b < 1$, the function is an _____ and is _____.
ASYMPTOTE	

Directions: Classify as an exponential growth or decay, graph, then identify its key characteristics.

1. $f(x) = 2^x$



Domain: _____

Range: _____

End Behavior:

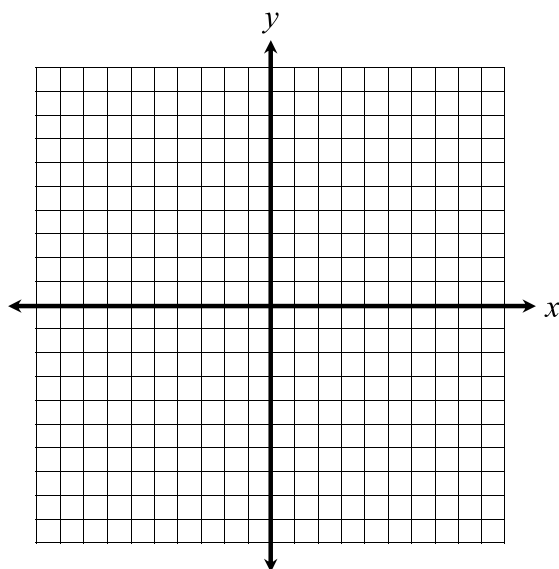
As $x \rightarrow \infty$, $f(x) \rightarrow$ _____

As $x \rightarrow -\infty$, $f(x) \rightarrow$ _____

y-intercept: _____

Asymptote: _____

2. $f(x) = 3^x$



Domain: _____

Range: _____

End Behavior:

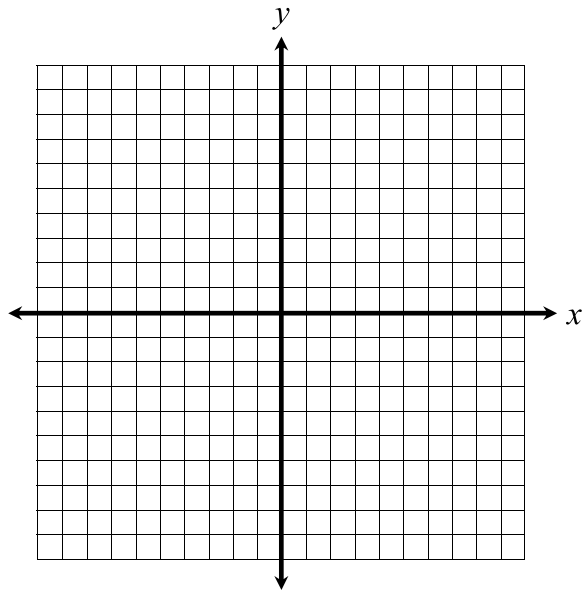
As $x \rightarrow \infty$, $f(x) \rightarrow$ _____

As $x \rightarrow -\infty$, $f(x) \rightarrow$ _____

y-intercept: _____

Asymptote: _____

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



Domain: _____

Range: _____

End Behavior:

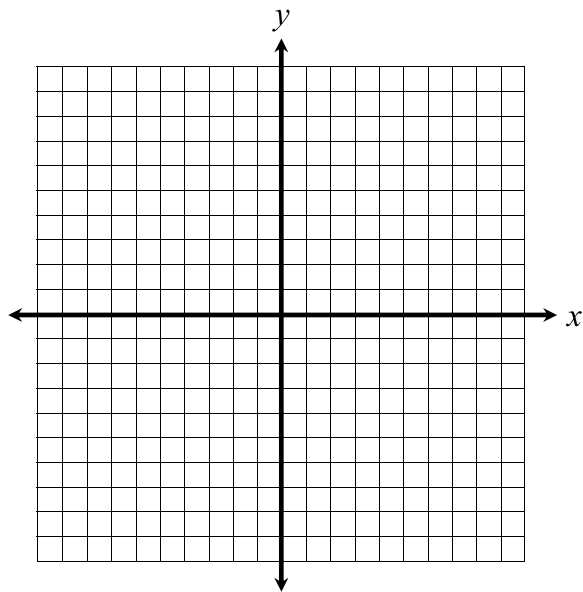
As $x \rightarrow \infty$, $f(x) \rightarrow$ _____

As $x \rightarrow -\infty$, $f(x) \rightarrow$ _____

y-intercept: _____

Asymptote: _____

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



Domain: _____

Range: _____

End Behavior:

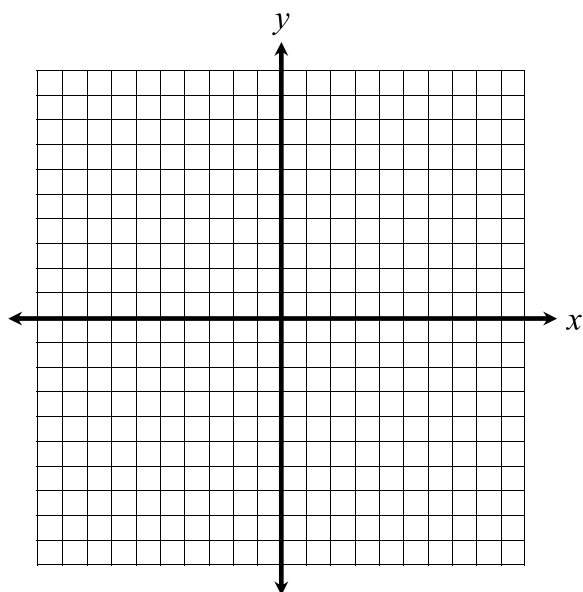
As $x \rightarrow \infty$, $f(x) \rightarrow$ _____

As $x \rightarrow -\infty$, $f(x) \rightarrow$ _____

y-intercept: _____

Asymptote: _____

5. $f(x) = \left(\frac{5}{2}\right)^x$



Domain: _____

Range: _____

End Behavior:

As $x \rightarrow \infty$, $f(x) \rightarrow$ _____

As $x \rightarrow -\infty$, $f(x) \rightarrow$ _____

y-intercept: _____

Asymptote: _____