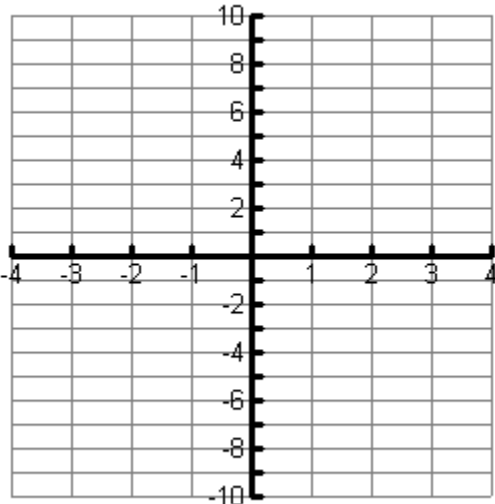


1. Graph each of the following functions on the same graph. Then find the following characteristics about each graph. Write "none" if it does not exist.

$$y = 2^x$$

$$y = \log_2 x$$



Domain _____

Domain _____

Range _____

Range _____

x-intercept _____

x-intercept _____

y-intercept _____

y-intercept _____

Equation of asymptote _____

Equation of asymptote _____

End behavior

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

End behavior

As $x \rightarrow 0$, $f(x) \rightarrow$ _____

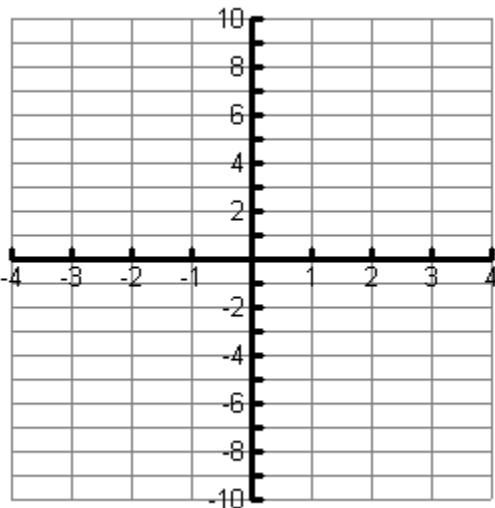
As $x \rightarrow +\infty$, $f(x) \rightarrow$ _____

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

2. Graph each of the following functions on the same graph. Then find the following characteristics about each graph. Write "none" if it does not exist.

$$y = e^x$$

$$y = \ln x$$



Domain _____

Domain _____

Range _____

Range _____

x-intercept _____

x-intercept _____

y-intercept _____

y-intercept _____

Equation of asymptote _____

Equation of asymptote _____

End behavior

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

End behavior

As $x \rightarrow 0$, $f(x) \rightarrow$ _____

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

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

What do you notice about the graphs of the two functions in problem #1?

What do you notice about the graphs of the two functions in problem #2?

These functions are _____ of each other.