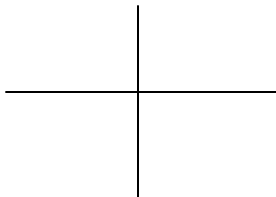
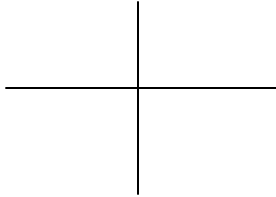
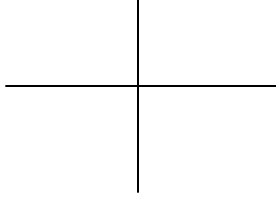
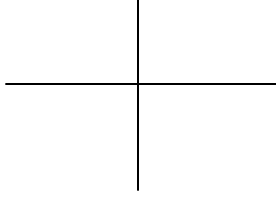
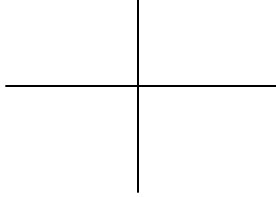
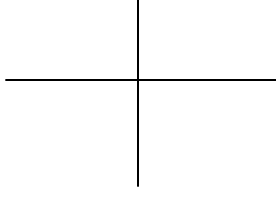


Graphing logarithmic functions. Name _____ Class/section _____ Date _____

Graph each logarithmic function. Please remember:

1. If the input argument to $\log(x)$ is not positive, the log function is undefined.
2. The $\log_b(x)$ function has a vertical asymptote at $x=0$.
3. The $\log_b(x)$ function is the inverse function of the exponential function b^x .

This means, for example, that if $b^3=5$, then $\log_b(5) = 3$.

	Function	Work	Table of values	Graph												
1	$\log_2(x)$		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>													
2	$\log_3(x)$		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>													
3	$\log_{0.5}(x)$		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>													
4	$\log_{10}(x)$		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>													
5	$\log_2(-x)$		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>													
6	$-\log_2(x)$		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>													
7	$-\log_3(-x)$		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>													