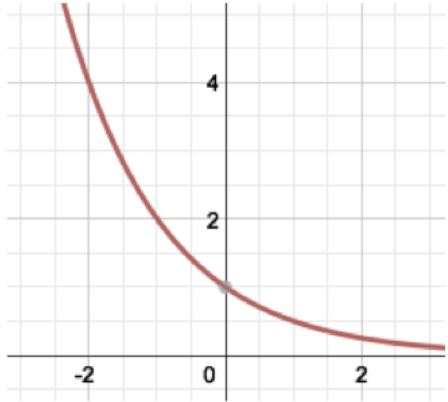


Exponential Function

An exponential function is a mathematical function of the following form:

$$f(x) = b^x$$

where x is a variable, and b is a constant called the base of the function.

$0 < b < 1$	$b > 1$
<p>These functions are <i>decreasing</i>, since for $x_1, x_2 \in \mathbb{R}$, such that $x_1 < x_2$ and $0 < b < 1$, $b^{x_1} > b^{x_2}$.</p> <p>e.g. $b = \frac{1}{2} \Rightarrow f(x) = \left(\frac{1}{2}\right)^x$</p> 	<p>These functions are <i>increasing</i>, since for $x_1, x_2 \in \mathbb{R}$, such that $x_1 < x_2$ and $b > 1$, $b^{x_1} < b^{x_2}$.</p> <p>e.g. $b = 2 \Rightarrow f(x) = (2)^x$</p> 