You can use a calculator to create a table of values to check if this statement is true or false. Another way to think about this is to go back to the definition of logarithm: $y = \ln x = \log_e x$ means that $e^y = x$. As x increases, the exponent y will increase. This is the same as saying that as x increases, $\ln x$ will increase. In other words, as the input increases, the graph goes up.