

The graph passes through  $\left(\frac{2}{5}, 1\right)$ ,  $(1, 0)$ , and  $\left(\frac{5}{2}, -1\right)$ , for example. These numbers make the equation  $y = \log_{\frac{2}{5}}x$  true. In general, when  $0 < b < 1$ , the graph of  $f(x) = \log_b x$  is decreasing and has this shape.