

Use the quotient property,  $\log_b \frac{M}{N} = \log_b M - \log_b N$ , and then simplify, using the fact that  $1,000 = 10^3$ .

$$\log_{10} \left( \frac{x}{1,000} \right) = \log_{10} x - \log_{10} 1,000 = \log_{10} x - 3$$