

Manipulating Common Logs (Base 10)

$y = \log_b x$ where $b = \text{base}$
Common logarithm $b = 10$.
When no base is given, assume base 10.
 $y = \log_{10} x$ is equivalent to $10^y = x$

Solve without using a calculator.

Example: $\log_{10} 100 = y$
 $10^y = 100$
 $y = 2$

1. $\log 1000$

2. $\log \sqrt[5]{10}$

3. $\log \sqrt[3]{10^2}$

4. $\log 0.1$

5. $\log 0.0001$

6. $\log \sqrt[4]{10}$

7. $\log \sqrt{10}$

8. $\log 10^6$

9. $\log 1$

10. $\log 10,000$