

18.2 – Evaluating Logarithms

Evaluate each logarithm by writing an equation in exponent form.

1. $\log_3 243 = x$ Rewrite: $y = b^x$

$243 = 3^x$ Make bases match!

$3^5 = 3^x$ Exponents are equal!

$x = 5$

2. $\log_9 729 = x$ Rewrite: $y = b^x$

$729 = 9^x$ make bases match!

$9^3 = 9^x$ Exponents are equal!

$x = 3$

3. $\log_{10} 100 = x$ Rewrite: $y = b^x$

$100 = 10^x$ make bases match!

$10^2 = 10^x$ Exponents are equal!

$x = 2$