

Worksheet: Logarithmic Function

Find the value of y .

(1) $\log_5 25 = y$ (2) $\log_3 1 = y$ (3) $\log_{16} 4 = y$

(4) $\log_2 \frac{1}{8} = y$ (5) $\log_5 1 = y$

Write the following equalities in exponential form.

(1) $\log_3 81 = 4$	(2) $\log_7 7 = 1$	(3) $\log_{\frac{1}{2}} \frac{1}{8} = 3$	(4) $\log_3 1 = 0$

Write the following equalities in logarithmic form.

(1) $8^2 = 64$	(2) $10^3 = 10000$	(3) $4^{-2} = \frac{1}{16}$	(4) $3^{-4} = \frac{1}{81}$