

## Convert Between Logs &amp; Exponential Functions

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Rewrite each equation in exponential form.

Rewrite each equation in logarithmic form.

1)  $\log_{16} 256 = 2$

21)  $4^{\frac{1}{2}} = 2$

3)  $\log_2 \frac{1}{8} = -3$

23)  $14^{-2} = \frac{1}{196}$

5)  $\log_{20} 400 = 2$

25)  $3^3 = 27$

7)  $\log_{13} 169 = 2$

27)  $14^2 = 196$

9)  $\log_9 \frac{1}{81} = -2$

29)  $6^3 = 216$

11)  $\log_y x = \frac{2}{3}$

31)  $x^y = 101$

13)  $\log_n 117 = 11$

33)  $3^n = 125$

15)  $\log_y 41 = x$

35)  $x^y = 191$

17)  $\log x = y$

37)  $x^y = 98$

19)  $\log_x 105 = y$

39)  $y^x = 72$