

Converting Between Logarithmic and Exponential Equations WS

Rewrite each equation in exponential form.

1) $\log_x y = 3$

$$x^3 = y$$

2) $\log_m n = -18$

$$m^{-18} = n$$

3) $\log_u 49 = v$

$$u^v = 49$$

4) $\log_{19} y = x$

$$19^x = y$$

5) $\log_a 6 = b$

$$a^b = 6$$

6) $\log_y 56 = x$

7) $\log_y 105 = x$

$$y^x = 105$$

8) $\log_x y = 7$

$$x^7 = y$$

9) $\log_y x = 18$

$$y^{18} = x$$

10) $\log_x \frac{99}{65} = y$

$$x^y = \frac{99}{65}$$

Rewrite each equation in logarithmic form.

11) $y^x = 125$

$$\log_y 125 = x$$

12) $12^x = 18$

$$\log_{12} 18 = x$$

13) $9^n = m$

$$\log_9 m = n$$

14) $p^7 = 47$

$$\log_p 47 = 7$$

15) $2^m = n$

$$\log_2 n = m$$

16) $6^x = y$

$$\log_6 y = x$$

17) $2^{11} = n$

$$\log_2 n = 11$$

18) $y^{\frac{19}{15}} = x$

$$\log_y x = \frac{19}{15}$$

19) $u^v = 6$

$$\log_u 6 = v$$

20) $12^y = x$

$$\log_{12} x = y$$