

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

*e*

Rewrite each equation in exponential form.

1)  $\log_8 64 = 2$

$$8^2 = 64$$

3)  $\log_3 81 = 4$

5)  $\log_{361} \frac{1}{19} = -\frac{1}{2}$

$$361^{-\frac{1}{2}} = \frac{1}{19}$$

Rewrite each equation in logarithmic form.

7)  $15^{-2} = \frac{1}{225}$

$$\log_{15} \frac{1}{225} = -2$$

9)  $14^2 = 196$

11)  $12^{-2} = \frac{1}{144}$

13)  $12^v = u$

15)  $\left(\frac{7}{4}\right)^x = y$

$$\log_{\frac{7}{4}} y = x$$

17)  $20^v = 199$

2)  $\log_{17} 289 = 2$

4)  $\log_{14} 196 = 2$

6)  $\log_{\frac{1}{7}} \frac{1}{49} = 2$

8)  $9^2 = 81$

10)  $2^{-3} = \frac{1}{8}$

12)  $18^2 = 324$

14)  $k^8 = 191$

$$\log_k 191 = 8$$

16)  $x^{-9} = y$

18)  $14^x = 160$

*e*

Rewrite each equation in exponential form.

19)  $\log_{11} x = y$

$$11^y = x$$

21)  $\log_{14} x = y$

20)  $\log_3 x = y$

22)  $\log_4 143 = v$

23)  $\log_v u = -7$

24)  $\log_{\frac{5}{3}} v = u$