

Q4HW4 - All work on looseleaf.

Evaluate each expression.

1) $\log_4 64$

2) $\log_4 16$

3) $\log_5 25$

4) $\log_5 125$

5) $\log_{64} 16$

6) $\log_{36} 6$

Rewrite each equation in exponential form.

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

8) $\log_{13} 13 = 1$

9) $\log_5 25 = 2$

10) $\log_7 49 = 2$

Rewrite each equation in logarithmic form.

11) $8^{\frac{1}{3}} = 2$

12) $36^{-\frac{1}{2}} = \frac{1}{6}$

13) $17^{-2} = \frac{1}{289}$

14) $2^6 = 64$

Solve each equation.

15) $\log_{11} (-5x - 8) = \log_{11} (-4x - 3)$

16) $\log_9 (3n + 3) = \log_9 (-5n + 5)$

17) $\log_6 (3b - 2) = \log_6 (-b + 2)$

18) $\log_3 (4v - 2) = \log_3 3v$

19) $\log_{13} (x^2 + 12) = \log_{13} (9x - 2)$

20) $\log (13n - 1) = \log (n^2 + 41)$