Solving Log Equations

Logs are BAE - exponent

base / answer

$\log_2 x = 8$

$2^8 = x$

$x = 256$

$\log_9 x = \frac{1}{2}$

$9^{\frac{1}{2}} = x$

$x = 3$

$\log_x 4 = 3$

$x^3 = 4$

$x = \sqrt[3]{4}$

$\log_x 25 = 2$

$x^2 = 25$

$x = \pm 5$

$\log_4 x = 3$

$4^3 = x$

$x = 64$

Solving Log Equations Practice

1. $\log_5 25 =$

2. $\log_3 1 =$

3. $\log_{16} 4 =$

4. $\log_2 \frac{1}{8} =$

5. $\log_5 1 =$

6. $\log_2 8 =$

7. $\log_9 9 =$

8. $\log_4 \frac{1}{8} =$

9. $\log_9 \frac{1}{81} =$

10. $\log_3 \sqrt{x} = 1 \qquad x =$

11. $\log_4 x = -\frac{3}{2} \qquad x =$

12. $\log_x \frac{9}{4} = -\frac{2}{3} \qquad x =$

Solving Log Equations Practice

1. $\log_5 25 = 2$
2. $\log_8 1 = 0$
3. $\log_{16} 4 = \frac{1}{2}$
4. $\log_2 \frac{1}{8} = -3$
5. $\log_5 1 = 0$
6. $\log_2 8 = 3$
7. $\log_9 9 = 1$
8. $\log_4 \frac{1}{8} = -\frac{3}{2}$
9. $\log_9 \frac{1}{81} = -2$
10. $\log_3 \sqrt{x} = 1$ $x = 9$
11. $\log_4 x = -\frac{3}{2}$ $x = \frac{1}{8}$
12. $\log_x \frac{9}{4} = -\frac{2}{3}$ $x = \frac{8}{27}$