



MAth on the Fly!



NAME: _____ DATE: _____

Logarithms

Find the value of each logarithm.

- | | | | | | |
|----|--------------|----|--------------|----|------------------|
| 1. | $\log_3(81)$ | 2. | $\log_4(64)$ | 3. | $\log_6(6^{10})$ |
| 4. | $\log_7(49)$ | 5. | $\log(1000)$ | 6. | $\log_5(625)$ |
| 7. | $\log_9(9)$ | 8. | $\log_8(1)$ | 9. | $\log_2(32)$ |

Find the value of x in each equation below.

- | | | | |
|-----|-------------------|-----|------------------------------|
| 10. | $\log_4(x) = 4$ | 11. | $\log(10000) = x$ |
| 12. | $\log_x(512) = 3$ | 13. | $\log_7(x) = -2$ |
| 14. | $\log_3(243) = x$ | 15. | $\log_x(1024) = 10$ |
| 16. | $\log_x(29) = 1$ | 17. | $\log_{36}(x) = \frac{1}{2}$ |

SOLUTIONS

1.

4

2.

3

3.

10

4.

2

5.

3

6.

4

7.

1

8.

0

9.

5

10.

$x = 256$

11.

$x = 4$

12.

$x = 8$

13.

$x = \frac{1}{49}$

14.

$x = 5$

15.

$x = 2$

16.

$x = 29$

17.

$x = 6$