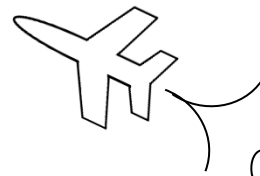




# MAth on the Fly!



NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

## Solving Logarithmic Equations

Solve each equation.

1.  $\log(3x + 1) = 3$

2.  $\log_5(x - 1) = 4$

3.  $\log_{12}(7x - 6) = \log_{12}(4x + 9)$

4.  $\log(x + 2) - \log(x) = 2$

5.  $\log_3(x - 4) + \log_3 9 = 6$

6.  $\log_7 x = \log_6 27 + \log_6 8$

7.  $\log_x 16 + \log_x 32 - \log_x 2 = 2$

8.  $(\log_{40} 40)^9 + (\log_{40} 1)^{10} = x - 1$

9.  $\frac{\log_4 2 + \log_4 32}{\log_2 24 - \log_2 3} = \log_7(x)$

## SOLUTIONS

1.  $x = 333$

2.  $x = 626$

3.  $x = 5$

4.  $x = \frac{2}{99}$

5.  $x = 85$

6.  $x = 343$

7.  $x = 16$

8.  $x = 2$

9.  $x = 7$