

**Solving Logarithmic Equations**  
**Math 3 Module 2**

To solve logarithmic equations \_\_\_\_\_.

Examples (Always check to ensure the solution is in the domain of the function.)

1.  $\log 3x = 2$

2.  $\log_3(5x - 1) = \log_3(x + 7)$

3.  $5 + 2\log x = 4$

4.  $2\log_5 3x = 4$

5.  $\log(x - 2) + \log(2x - 3) = 2\log x$

6.  $\log x + \log(x - 9) = 1$