Unit #2: Logarithms
Topic: Solving Log Equations
Objective: SWBAT solve an equation by using properties of logarithms.

Warm Up #4:

Does $ln600 = 3ln2 + ln3 + 2ln5$? Justify your answer.

What would the $ln630 = ?$

To solve a logarithmic equation:

1)
2)
3)

Example #1: *Solve for x:* $log_4(x^2 - 3x - 2) = 2$

Example #2: *Solve for x:* $\quad log_2(4x + 10) - log_2(x + 1) = 3$

__Assignment(s)__: Complete practice problems #1 − 16
Weekly Review #2 Due Wednesday 9/30

Problem Set #4: Solve each of the following logarithmic equations.

1) $ln\sqrt{x + 2} = 1$	2) $ln(x + 3) + ln(x - 3) = ln\,16$
3) $2log_3x - log_3(x - 2) = 2$	4) $log_{(x-5)}343 = 3$

5) $log_2(x - 1) + 6 = 9$

6) $log_2(x - 3) + log_2(x + 1) = 5$

7) $log_3 x + log_3(x - 8) = 2$

8) $log_2(x + 5) - log_2(x - 2) = 3$

9) $7log_4(0.6x) = 12$

10) $ln(x^2 + 1) = 8$

11) $ln(x + 5) = ln(x - 1) - ln(x + 1)$

12) $log_2(2x - 1) + log_2(x + 7) = 3$

13) $ln(x + 11) - ln(x - 3) = ln\,3$

14) $log_3(2x - 5) = log_3(x - 1)$

15) $4log(x - 6) = 11$

16) $log_4(x^2 + 3x) - log_4(x + 5) = 1$