

**LOGARITHMIC & EXPONENTIAL EQUATIONS REVIEW**

**Directions:** Work **together** to solve each equation. Do not divide up the work! Each person should be participating. At the end of class, one person's paper will be chosen at random and graded for the group.

**LOGARITHMIC EQUATIONS**

1.  $\log_7(9x - 4) = \log_7(x + 20)$

2.  $\log_5(m^2 - 12) = \log_5 m$

3.  $\log_3 4 + \log_3(a + 5) = \log_3 56$

4.  $\log(2y - 10) = 7 \cdot \log 2 - \log 8$

5.  $\log_4(5m + 9) = 3$

6.  $\log_{36}(20 - 4p) = \frac{1}{2}$

7.  $\log_6(7k - 1) = 3$

8.  $\log(n + 8) + \log 4 = 2$

Name: \_\_\_\_\_

Unit 5: Exponential & Logarithmic Functions



Date: \_\_\_\_\_ Bell: \_\_\_\_\_

Logarithmic & Exponential Equations

**Directions:** Solve each equation. Check all answers for extraneous solutions.

1.  $\log_4(25 - 2x) = \log_4(6x + 1)$

2.  $\log_9(8y - 9) = \log_9 108 - \log_9 4$

3.  $6 \cdot \log_2 2 = \log_2 8 + \log_2(a - 2)$

4.  $\log_6(5w + 14) = 2 \cdot \log_6 w$

5.  $\log_7(3x + 5) = 2$

6.  $\log_{27}(11 - 2k) = \frac{1}{3}$

7.  $\log(24x + 64) = 3$

8.  $5 = \log_3 8 + \log_3(r + 6)$