

Name : _____ Score : _____

Teacher : _____ Date : _____

Logarithmic Equations

Solve each given equation.

1) $\log 9q = \log (4q - 6)$

8) $\log_7 (5x + 3) = \log_7 (9x - 9)$

2) $\log_4 (5x + 10) = \log_4 (9x + 3)$

9) $\log_2 n + \log_2 4 = 2$

3) $\log_3 s + \log_3 3 = 2$

10) $\log_5 n + \log_5 8 = \log_5 10$

4) $\log q + \log 6 = \log 4$

11) $\log_5 8 + \log_5 4w^2 = \log_5 4$

5) $\log_6 9 + \log_6 3w^2 = \log_6 7$

12) $\log_9 (9b^2 + 243) = \log_9 108$

6) $\log_3 (5p^2 + 180) = \log_3 65$

13) $\log_8 8r = \log_8 (5r + 7)$

7) $\log_4 2q = \log_4 (6q + 7)$

14) $\log_7 (7p + 5) = \log_7 (5p - 9)$

