Name : _____ Score : _____

Teacher : _____ Date : _____

Logarithmic Equations

Solve each given equation.

1) $\log_7 5n = \log_7 (3n - 4)$

2) $\log_2 3 + \log_2 4r^2 = \log_2 9$

3) $\log 4y = \log (5y + 2)$

4) $\log_9 (8s^2 + 360) = \log_9 (112s)$

5) $\log_7 (7g^2 + 420) = \log_7 (112g)$

6) $\log_5 z + \log_5 10 = 2$

7) $\log_4 (9p + 8) = \log_4 (6p + 3)$

8) $\log_6 4 + \log_6 2p^2 = \log_6 6$

9) $\log 9 + \log 3k^2 = \log 5$

10) $\log_3 s + \log_3 3 = \log_3 10$

11) $\log 5w = \log (7w + 7)$

12) $\log_5 y + \log_5 10 = 2$

13) $\log_2 h + \log_2 8 = \log_2 6$

14) $\log_4 (8x^2 + 160) = \log_4 (-96x)$

Name : _____ Score : _____

Teacher : _____ Date : _____

Logarithmic Equations

Solve each given equation.

1) $\log_7 5n = \log_7 (3n - 4)$

-2

2) $\log_2 3 + \log_2 4r^2 = \log_2 9$

$\pm \frac{\sqrt{3}}{\sqrt{4}}$

3) $\log 4y = \log (5y + 2)$

-2

4) $\log_9 (8s^2 + 360) = \log_9 (112s)$

{5 , 9}

5) $\log_7 (7g^2 + 420) = \log_7 (112g)$

{6 , 10}

6) $\log_5 z + \log_5 10 = 2$

$\frac{25}{10}$

7) $\log_4 (9p + 8) = \log_4 (6p + 3)$

$\frac{-5}{3}$

8) $\log_6 4 + \log_6 2p^2 = \log_6 6$

$\pm \frac{\sqrt{3}}{\sqrt{4}}$

9) $\log 9 + \log 3k^2 = \log 5$

$\pm \frac{\sqrt{5}}{\sqrt{27}}$

10) $\log_3 s + \log_3 3 = \log_3 10$

$\frac{10}{3}$

11) $\log 5w = \log (7w + 7)$

$\frac{7}{-2}$

12) $\log_5 y + \log_5 10 = 2$

$\frac{25}{10}$

13) $\log_2 h + \log_2 8 = \log_2 6$

$\frac{3}{4}$

14) $\log_4 (8x^2 + 160) = \log_4 (-96x)$

{-2 , -10}