

Logs Review WS #2

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Solve each equation. REMEMBER TO CHECK YOUR ANSWERS!!

1) $\log_{17} (p + 9) = \log_{17} (-4p + 6)$

2) $\log_8 (x + 2) = \log_8 3x$

3) $\log_2 (12b - 2) = \log_2 (b^2 + 33)$

4) $\log_5 (n^2 + 5n) = \log_5 (18 - 2n)$

5) $6\log_5 -8r = 18$

6) $-2\log_2 (x - 9) = 2$

$$7) -10 + \log_9 (9n - 10) = -9$$

$$8) -8 + \log_4 (6b - 10) = -7$$

$$9) 5 \log_{12} (-3v - 6) - 6 = 9$$

$$10) -4 \log_3 (7x + 8) - 3 = -3$$

$$11) -9 + 2 \log_5 (7a - 4) = -3$$

$$12) 9 - 7 \log_{11} (9x - 6) = 16$$

$$13) \log_4 (x + 6) - \log_4 5 = 2$$

$$14) \log_3 -3x + \log_3 8 = 1$$

$$15) \log_7 9 - \log_7 -4x = 2$$

$$16) \log_4 (x + 1) - \log_4 x = \log_4 70$$

$$17) \log_8 (2 - 4x^2) + \log_8 10 = \log_8 10$$

$$18) \log_8 (3x^2 + 5) - \log_8 10 = 1$$

Solve each equation. Round your answers to the nearest ten-thousandth.

$$19) 9 \cdot 7^{8m+7} = 24$$

$$20) 7^{4n-4} - 5 = 86$$

$$21) -6 \cdot 14^{9-2v} + 4 = -82$$

$$22) -6 \cdot 17^{1.5b-5.3} - 5 = -76$$