

## Homework-Review Solving Exponents and Logarithmic Equations

**Solve each equation.**

1)  $\left(\frac{1}{6}\right)^{-n} = 216^{-3n+1}$

2)  $25^{3n-1} = 625$

3)  $\log_6 (3x - 5) = \log_6 (x + 9)$

4)  $\log_9 (x + 10) + \log_9 4 = 2$

5)  $\log_{19} (p^2 - 5) = \log_{19} (-5p + 1)$

6)  $\log_5 (x^2 - 1) - \log_5 3 = 1$

7)  $\log_4 3 - \log_4 (x - 10) = 1$

8)  $\log_9 6 - \log_9 (x - 8) = \log_9 12$

9)  $2^{-2r-1} = \frac{1}{32}$

10)  $\ln x + \ln (x + 35) = \ln 74$

## Answers to Homework-Review Solving Exponents and Logarithmic Equations (ID: 1)

1)  $\left\{\frac{3}{10}\right\}$

2)  $\{1\}$

3)  $\{7\}$

4)  $\left\{\frac{41}{4}\right\}$

5)  $\{-6\}$

6)  $\{4, -4\}$

7)  $\left\{\frac{43}{4}\right\}$

8)  $\left\{\frac{17}{2}\right\}$

9)  $\{2\}$

10)  $\{2\}$