First & Last Name_____ Date _____ Period_____

5.7 Practice

Directions: Solve each equation. Check for extraneous solutions.

1. $\ln 60 - \ln 4 = \ln(x^2 + 2z)$

$x = -5, 3$

2. $\ln 8 + \ln(n - 9) = 5 \ln 2$

$n = 13$

3. $\ln(4w + 9) = 5$

$w = \frac{e^5 - 9}{4} \approx 11.100$

4. $\ln k - \ln 14 = 2$

$k = 14e^2 \approx 103.447$

5. $-2e^c + 14 = -6$

$c = \ln 10 \approx 2.303$

6. $e^{y-1} - 27 = 54$

$y = \ln 81 + 1 \approx 5.394$

7. $4e^{3k} + 1 = 85$

$k = \frac{1}{3} \ln 21 \approx 1.015$

8. $e^{5-2p} + 2 = 4$

$p = \frac{\ln 2 - 5}{-2} \approx 2.153$