Pre-Calculus AB   Name_____

Worksheet 32 - Lesson 82

Date_____ Period_____

Solve each equation.

1) $5^{b-8} + 2 = 71$

2) $-12^{-3n} = -60$

3) $-7e^{4k} + 7 = -78$

4) $-7 \cdot 4^{r-8} - 7 = -92$

5) $-9 \cdot 6^{6r-4} + 1 = -91$

6) $-4 \cdot 20^{-9x-3} - 1 = -11$

7) Solve: $6^{3x+2} = 4^{2x-1}$

8) Solve: $10^{-3x-4} = 5^{2x-1}$

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Solve each equation.

9) $\dfrac{\left(\dfrac{1}{8}\right)^{1-3n}}{\left(\dfrac{1}{32}\right)^{n-1}} = 1$

10) $16^{2-2a} \cdot 4^{1-3a} = 16^{3-2a}$

11) $\log_4\left(3x^2 + 2\right) + \log_4 3 = \log_4 22$

12) $\log_3\left(x + 6\right) + \log_3\left(x + 8\right) = 1$

13) $\log_7\left(x - 3\right) - \log_7\left(x + 2\right) = 1$

14) $\log 2 - \log\left(5 - 3x\right) = 2$