

Algebra 2/Trigonometry

8.6 Homework:

Solving Exponential & Logarithmic Equations

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Block: \_\_\_\_\_

Directions: Solve each exponential equation.

1.)  $e^{2x} = e^{x^2-8}$

$x = 4, -2$

2.)  $4e^x = 91$

$x = 3.125$

3.)  $6^x + 10 = 47$

$x = 2.015$

4.)  $6^{5x} = 3000$

$x = 0.894$

5.)  $4^{-3t} = 0.10$

$t = 0.554$

6.)  $2^{x-3} = 32$

$x = 8$

7.)  $8^{-2-x} = 431$

$x = -4.917$

8.)  $5(10^{x-6}) = 7$

$x = 6.146$

9.)  $8(3^{6-x}) = 40$

$x = 4.535$

10.)  $e^{2x} = 50$

$x = 1.956$