

# 5.6 Day #1

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

Use logarithms to solve each equation. Round to three decimal places.

1.  $2^x = 30$

2.  $3.1^{a-3} = 9.42$

3.  $8.2^{n-3} = 42.5$

4.  $5^{x+2} = 15.3$

5.  $8^{y-2} = 7.28$

6.  $7.6^{a-2} = 41.7$

7.  $20^{x^2} = 70$

8.  $5.8^{x^2-3} = 82.9$

9.  $5^{x-1} = 3^x$

10.  $16^{d-4} = 3^{3-d}$

11.  $5^{3y} = 8^{y-1}$

12.  $2^{2x+3} = 3^{3x}$

13. If \$1500 is placed in an account that pays 6.5% interest compounded continuously, how long will it take for the money in the account to double?

\*Use the formula  $A=Pe^{rt}$