

**General Algebra 2 Worksheet #6 Unit 12 page 1** \_\_\_\_\_

Use the common base method to solve each of the equations. Show your work neatly organized.

1.  $3^x = 27$

2.  $5^x = .2$

3.  $2^x = .25$

4.  $32^x = 4$

5.  $81^x = 27$

6.  $25^x = 125$

7.  $2^{(3x-5)} = 8$

8.  $5^{(2x+3)} = 625$

9.  $10^{(4x-1)} = .001$

10.  $8^{(2x-1)} = 16^{(x+2)}$

## General Algebra 2 Worksheet #6 Unit 12 page 2

Use logarithms to solve each of the equations. Express your answers rounded to the nearest hundredth. Show your work neatly organized.

11.  $3^x = 5$

12.  $2^x = .2$

13.  $6^{(2x)} = 3$

14.  $3^{(-2x)} = 35$

15.  $5^{(x+2)} = 50$

16.  $2^{(2x-1)} = 20$

17.  $3^{(x+1)} = 5^{(2x-3)}$

18.  $e^{(3x)} = 5$

19.  $e^{(2x+1)} = 9$

20.  $e^{(x-2)} = 2$