

Math 1414  
College Algebra  
Lab Exercise # 3  
Mr. Shea

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

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

Section: \_\_\_\_\_

Semester: \_\_\_\_\_

**Attach computer printouts to this sheet and submit your assignment to your instructor.**

- 3a. Use the TI-83 to construct and print a table and graph for the functions  $y = 5^x$  and  $y = (5^x) - 3$ . (Print) Use  $y = 5^x$  as the basic graph and state the relationship between the graphs.
- 3b. Use the TI-83 to construct and print a table and graph for the functions  $y = \left(\frac{1}{3}\right)^x$  and  $y = \left(\frac{1}{3}\right)^{x+2}$ . (Print) Use  $y = \left(\frac{1}{3}\right)^x$  as the basic graph and state the relationship between the graphs.
- 3c. Use the TI-83 to construct and print a table and graph for the functions  $y = \log_5 x$  and  $y = -\log_5(x-1)$ . (Print) Use  $y = \log_5 x$  as the basic graph and state the relationship between the graphs.
- 3d. Use the TI-83 to construct and print a table and graph for the functions  $y = \log_{1/2} x$  and  $y = 2 + \log_{1/2} x$ . (Print) Use  $y = \log_{1/2} x$  as the basic graph and state the relationship between the graphs.
- 3e. Use the TI-83 to construct and print a table and graph for the functions  $y = \ln(x^2 + 3x - 6)$ . (Print)

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**\*\*\*If in doubt, Print it out!\*\*\***

3a) Enter the given equations in the equation editor by pressing the [Y=] button. Make sure to enter them just like the instructions show. Graph the equations. Set up the calculator to go into split screen. Press the [MODE] button and scroll down to Full then over to Horiz. press [ENTER], then [2<sup>nd</sup>] [MODE]. To make the table come up as well hit [2<sup>nd</sup>] [GRAPH] (TABLE). Scroll through the table to compare the values of each graph. Describe the relationship between the two graphs. Use your text for reference.

3b) Since the screen is already split, for this problem and the remaining problems you only have to enter the equations in the equation editor, by pressing the [Y=] button. After entering the equations exactly as the instructions state you now only have to bring up the table for your graphs. (you do this by hitting [2<sup>nd</sup>] [GRAPH] (TABLE)) Describe the relationship between the two graphs. Use your text for reference.

3c) Follow the directions for 3b.

3d) Follow the directions for 3b..

3e) Follow the directions for 3b. Make sure that you have cleared out or turned off any other equations in the equation editor.