Using a Graphing Utility

Directions:

1. Press the y= button and type in 4 – x2.

2. Press ZOOM, and choose option 6 (ZStandard).

3. Press WINDOW. We write windows as [Xmin, Xmax, Xscl] by [Ymin, Ymax, Yscl]. Write the given to you by your graphing calculator in this format:

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This is the standard viewing rectangle for all graphing calculators.

4. We can change the window of our graph. Change the graph window according to the following settings, and sketch what you see on your graphing calculator.

 a. [-5, 5, 1] by [-5, 5, 0.5]

 b. [-3, 3, 0.5] by [-3, 4, 0.5]

 c. [-2, 3, 0.5] by [-10, 20, 5]

5. Graphing calculators give us tables for our equations. Press the y= button. Scroll down to the Y2 entry, and then press MATH, then scroll to the right over to NUM and select 1:abs( and hit ENTER. Then, hit the variable button and close the parentheses. Press ZOOM and choose the standard window (option 6). What equation or type of equation have you graphed?

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6. Press TABLE. Use the table to find What y is when x = 56 for both equations. To do this, press TBLSET and change the table start to 56. Then hit TABLE.

Y1=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Y2=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Clear your entries in the y= screen. Graph the equation y = 3x3 – 5x +2, using the standard viewing screen. Sketch the graph you see.

8. Now, we’re going to change the viewing window to [-5, 5, 1] by [-8, 8, 1]. Sketch the graph you see.

9. Use the table to find the value of y when x = 1,002. Now, find y when x = -55.