MT-A141 Precalculus

Group: \_\_\_\_\_

Present:

Graphing calculator warm-up:

1. With no functions entered or selected in the y = window, select ZStandard from the Zoom menu (for a TI calculator).

What part of the cartesian plane is represented?

Viewing window:  $[\_\_,\_] \times [\_\_,\_]$ Can you move the cursor (using the arrow buttons) to the point (2,3)? Write a sentence to explain!

How much gap is there between adjacent pixels?

 $\Delta x =$ \_\_\_\_\_,  $\Delta y =$ \_\_\_\_\_

Can you think of a time when you'd like to have  $\Delta x$  equal to  $\Delta y$ ?

Select ZSquare from the Zoom menu. Now:

Viewing window:  $[\_\_,\_] \times [\_\_,\_]$ 

 $\Delta x = \underline{\qquad}, \Delta y = \underline{\qquad}$ 

Write a sentence to explain what selecting ZSquare has done:

Next select ZDec from the Zoom menu. Then:

Viewing window:  $[\_\_,\_] \times [\_\_,\_]$ 

Can you move the cursor (using the arrow buttons) to the point (2,3)? Write a sentence to explain!

2. In the y = window, enter  $Y_1 = 144 - x^2$  and graph using ZStandard. What do you see?

Now trace and use the y-coordinates of points on the function to help you find a viewing window which gives a "complete graph" for this function (make sure your viewing window shows all the interesting features of the graph)

Viewing window:  $[\_\_\_,\_\_] \times [\_\_\_,\_\_]$ 

3. Find a viewing window which makes the graph of  $y = \sqrt{144 - x^2}$  look like a semicircle (which it is!).

Viewing window:  $[\_\_,\_] \times [\_\_,\_]$ 

(Hint: find a viewing window which shows a complete graph first, and then use ZSquare)