## Graphing Quadratics in Factored Form

Turn the calculator on. (on)

Press (in) $8<1$ and under Display Digits select Float 2 by clicking on the pull down menu.
Press
Use the (tab key to tab down to Apply to System and press .
Click on OK when asked "Do you wish to apply current settings to system settings?".


Press (3) 6 to open a new document


Select 1 : Add Calculator. (If you are asked if you wish to save a previous document, click on "No").


Press menu $4>2$ to access the factor command


Type in the quadratic expression between the brackets. Press 《ƠTurs.

On the right side of the screen is the factored form of the quadratic. This is the expression to be used to graph the relation. (You could copy it by using the up arrow on the nav pad until the expression is highlighted and then press cetr)(C.

Press (1) to move to a new page. Select 2:Add Graphs \& Geometry

Type in the equation in the $\mathbf{f 1}$ position at the bottom of your screen. (If you copied the expression from the calculator page you can now paste it in by pressing (ctr).


## Press (3)



Use the arrow keys on the nav pad to move the cursor to the equation title on the screen. You will see an open hand appear. Grab the equation by pressing
ㅇtㄱ (P) Chear . The hand will close and you can then use the arrows on the nav pad to move the equation to a more convenient spot on your screen.
Press esc.

Press menv 5 5 in order to access the trace command to locate specific points on your graph.

The first ordered pair you will see in the $y$-intercept. Use the right arrow keys on your nav pad to find other points.


If you continue to trace using the right arrow of the nav pad you will find the vertex or minimum point. A small $m$ will appear on the screen near the ordered pair.
When you reach an $x$-intercept (or zero) of the graph you will see a small $z$ appear beside the ordered pair.

Continue tracing until you find the other $x$-intercept.

Record the ordered pairs you found for the $y$-intercept, $x$-intercepts and vertex on the student worksheet in question \#2a.

Follow the same procedure to fill out the rest of the worksheet.

