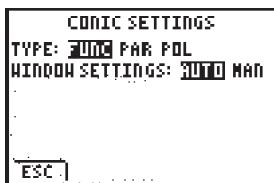
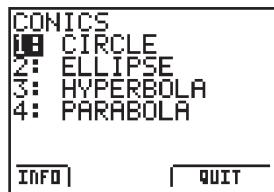


# Conic Graphing App

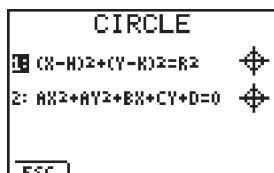
This App allows you to graph or trace circles, ellipses, hyperbolas, and parabolas and solve for the conic's characteristics.

**1**

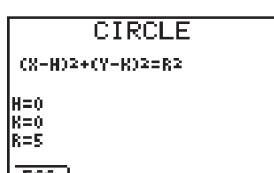
Select the App by pressing the [APPS] key and selecting Conics. If the App does not behave like this script, then press [MODE] and ensure the window setting is "AUTO."

**2**

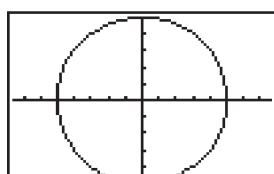
At the main menu, select from the conic types. The main menu allows you to use the [ENTER] key, number keys, or soft keys ([ $\text{Y=}$ ] for INFO, or [ $\text{TRACE}$ ] and [ $\text{GRAPH}$ ] for QUIT). Press the INFO soft key and the splash screen will appear for a few seconds.

**3 Circle in (X, Y) Form**

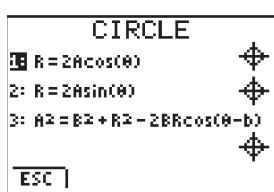
Press [ENTER] or [1] to select circle. Here are the two equations for a circle in the XY form. Select Equation 1 by pressing [1].

**4**

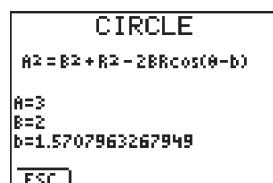
Enter H=0, K=0, and R=5. Press [GRAPH].

**5**

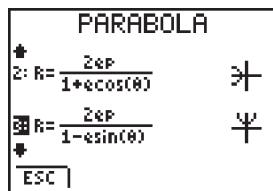
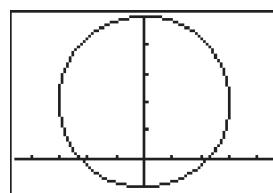
The circle is displayed. Press the [CLEAR] key to go back. Press [TRACE] to show the points along the curve.

**6 Circle in Polar Form**

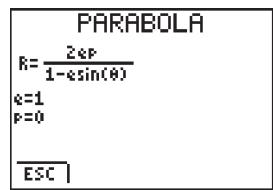
Press [MODE] and change the CONIC SETTINGS TYPE to "POL." Press the ESC soft key. If the equation screen of the circle is visible, the polar equations will now be displayed.

**7**

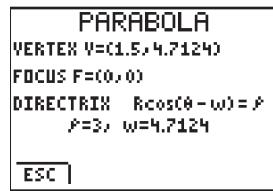
Note that the B and b are the polar form of the offsets. Select equation 3 and enter A=3, B=2, and b=  $\pi/2$ . Note that  $\pi/2$  is evaluated.

**9 Parabola in Polar Form**

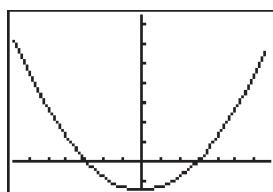
From the circle, press the ESC soft key to return to the main menu. Press [4] and the parabola equations appear. Since the handheld is in polar mode, there are 4 different polar equations for the parabola. Select equation 3.

**10**

Fix the eccentricity of the parabola to 1. Change the P value to be 1.5 and press the [ALPHA] [SOLVE] key.

**11**

Here, the solutions to parabola specific terms are shown in polar form and also reflect radian mode. Exit the App and change the mode setting to degrees, re-enter the App and show the difference. Press the [GRAPH] key.

**12**

The graph is displayed. Press the [TRACE] key and use the arrows to move along the curve.