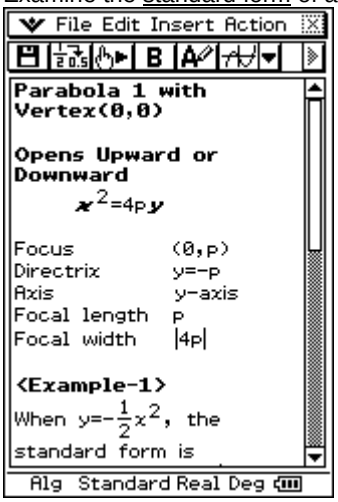
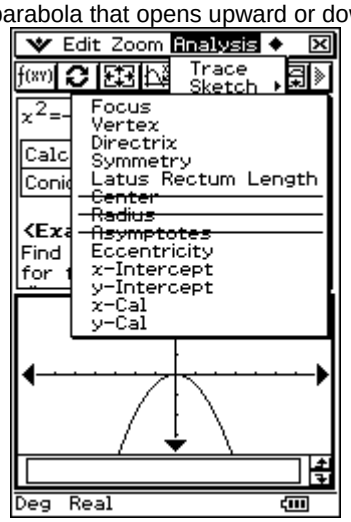
Conics - Parabola

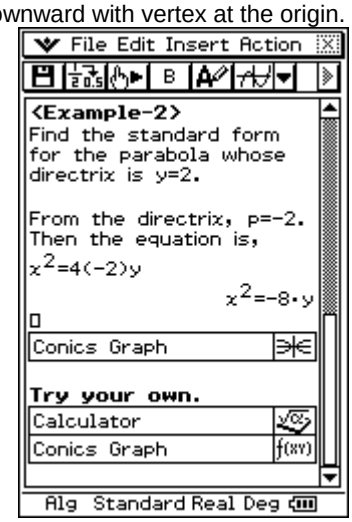
We are starting a new series this week, a study of Conics, using the powerful Conics application. We start with parabolas, putting examples in standard form and finding the different parts, like focus, vertex, and directrix. See how easy it is to graph and use features like G-Solve in the Conics application. Don't miss the last eActivity with animation of a light source and parabola. This ends with a challenge for you to construct your own example. Watch for continuing explorations of Conics in all their many forms.

This file includes eActivities on:
Parabola 1 UD (0,0) Examine the standard form of a parabola that opens upward or downward with vertex at the origin.
Parabola 2 RL (0,0) This parabola opens to the right or left, and is symmetric about the x-axis. Find the standard form for this parabola.
Parabola 3 UD (h,k) No longer is the vertex on the origin, but that shouldn't slow you down. The vertex is (h,k) and the axis of symmetry is x=h.
Parabola 4 RL (h,k) Parabolas in this "standard form" have a vertex point at (h,k) and are symmetric about y=k.
Parabola 5 Reflective Property Check out this fascinating example of light and parabolas. Then try to construct the television rays coming into your Satellite dish.

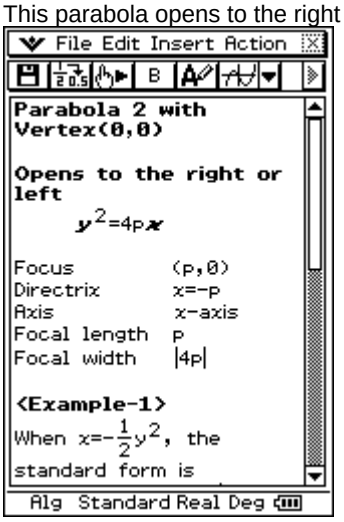
Parabola 1
Examine the standard form of a parabola that opens upward or downward with vertex at the origin.

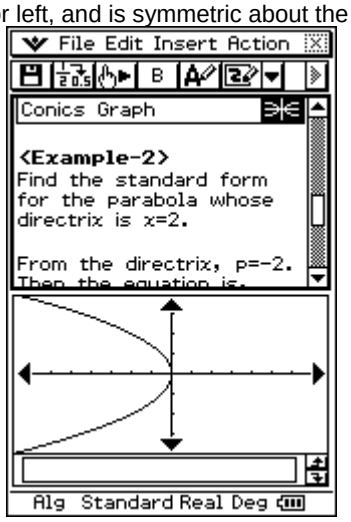


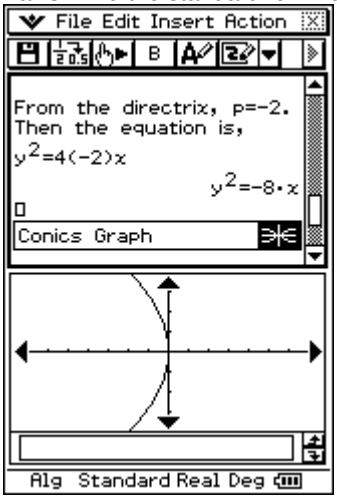




Parabola 2
This parabola opens to the right or left, and is symmetric about the x-axis. Find the standard form for this parabola.

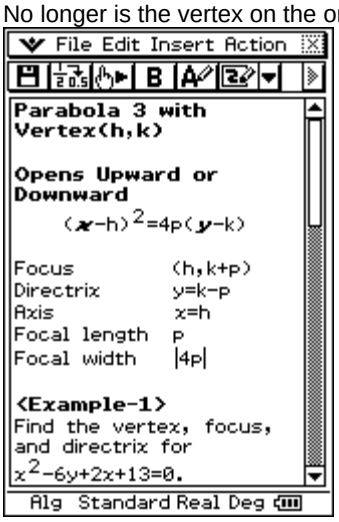


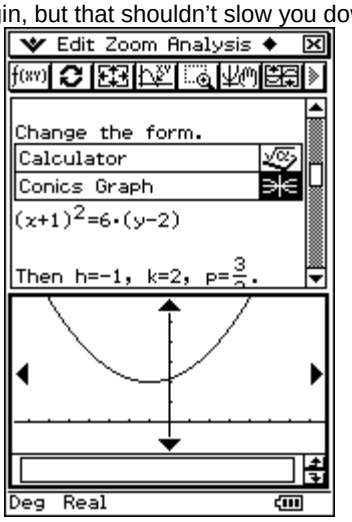


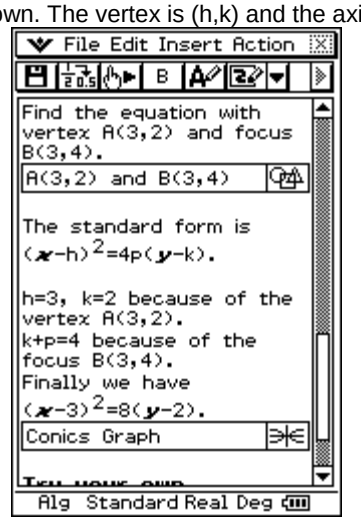


Parabola 3

No longer is the vertex on the origin, but that shouldn't slow you down. The vertex is (h,k) and the axis of symmetry is x=h.

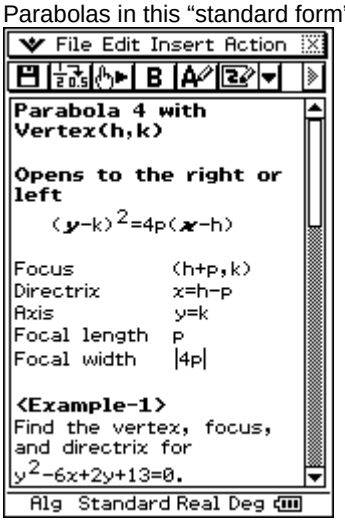


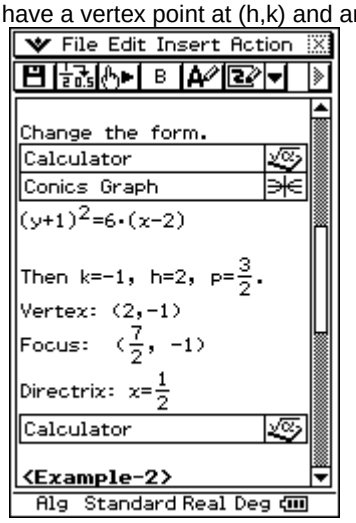


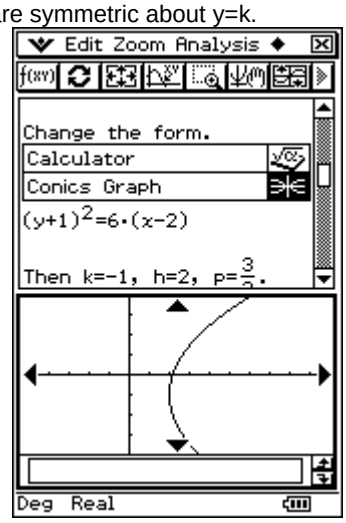


Parabola 4

Parabolas in this "standard form" have a vertex point at (h,k) and are symmetric about y=k.







Parabola 5

Check out this fascinating example of light and parabolas. Then try to construct the television rays coming into your Satellite dish.