<http://orion.math.iastate.edu/trig/sp/xcurrent/applets/parabola.html>

**Parabolas with Vertex at (0,0)**

*(please wait while the applet loads...)*

The applet below lets you explore the graphs of parabolas with **vertex at (0,0)**. There are two types: the first type is generated by the equation **4ay=x2**, and the second type by **4ax=y2**.

The equation **4ay=x2** generates a parabola which **opens** **upward if** **a>0** and **opens downward if** **a<0**. The **red** graph below is the parabola, and the **green** graph is the directrix of the parabola. Where is the **focus**? Use the slider to explore the effect of changing the value of **a**.

*MultiGraph* applet written by David Eck (http://math.hws.edu/javamath/index.html)

The equation **4ax=y2** generates a parabola which **opens to the right if** **a>0** and **opens to the left if** **a<0**. The **red** graph below is the parabola. Where are the **focus** and the **directrix**? Use the slider to explore the effect of changing the value of **a**.

*MultiGraph* applet written by David Eck (http://math.hws.edu/javamath/index.html)