

Algebra 2
Unit: Conic Sections
Section: Parabolas

Flash Cards: Graphing a Parabola with a Vertex at the Origin

Directions: Graph the following parabolas.

1. Graph: y equals one-twelfth x squared
2. Graph: x equals one-eighth y squared
3. Graph: x equals negative one-twelfth y squared
4. Graph: y equals negative one-eighth x squared

Answers:

1. the graph has a vertex at $(0, 0)$, directrix as y equals negative 3, focus at $(0, 3)$ and opens up
2. the graph has a vertex at $(0, 0)$, directrix as x equals negative 2, focus at $(2, 0)$ and opens right
3. the graph has a vertex at $(0, 0)$, directrix as x equals 3, focus at $(-3, 0)$ and opens left
4. the graph has a vertex at $(0, 0)$, directrix as y equals 2, focus at $(0, -2)$ and opens down