

# 10-2 Practice

## Parabolas

Form G

Write an equation of a parabola with vertex at the origin and the given focus.

1. focus at  $(-2, 0)$

2. focus at  $(0, 4)$

3. focus at  $(0, -3)$

Identify the vertex, the focus, and the directrix of the parabola with the given equation. Then sketch the graph of the parabola.

7.  $y = \frac{1}{12}x^2$

Vertex:

Focus:

Directrix

8.  $x = -\frac{1}{4}y^2$

Vertex:

Focus:

Directrix:

9.  $y = \frac{1}{2}(x-1)^2$

Vertex:

Focus:

Directrix

10.  $x = -\frac{1}{4}(y+1)^2 + 2$

Vertex:

Focus:

Directrix:

Write an equation of a parabola with vertex at the origin and the given directrix.

11. directrix  $x = 3$

12. directrix  $y = 4$

13. directrix  $x = -2$