

10-1 Practice

Exploring Conic Sections

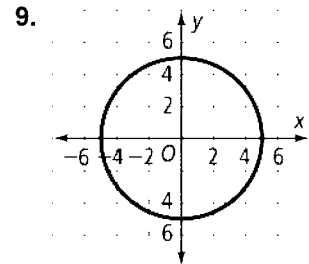
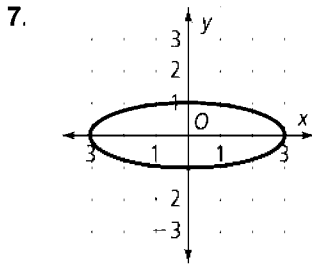
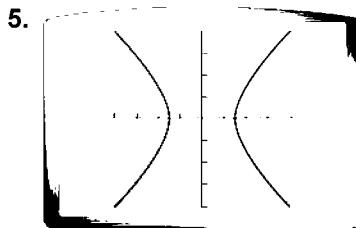
Form G

Graph each equation. Identify the conic section and describe the graph and its lines of symmetry. Then find the domain and range.

1. $9x^2 + 4y^2 = 36$

3. $8x^2 + 8y^2 = 40$

Identify the center and intercepts of each conic section. Give the domain and range of each graph. (On graphing calculator screens, each interval represents two units.)



Match each equation with a graph in Exercises 4–9.

11. $x^2 + y^2 = 25$

13. $x^2 + y^2 = 9$

15. $x^2 - y^2 = 9$

Graph each equation. Describe the graph and its lines of symmetry. Then find the domain and range.

17. $y^2 - x^2 = 9$

19. $x^2 + y^2 = 4$

21. $3x^2 + 3y^2 - 9 = 0$

23. $6x^2 + y^2 - 12 = 0$

Mental Math Each given point is on the graph of the given equation. Use symmetry to find at least one more point on the graph.

27. $(2, 0)$; $x^2 + y^2 - 4 = 0$

29. $(-1, 0)$; $4x^2 + 4y^2 = 4$