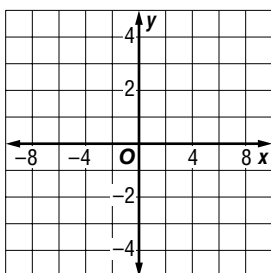


10-6 Skills Practice

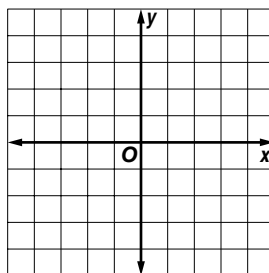
Conic Sections

Write each equation in standard form. State whether the graph of the equation is a *parabola*, *circle*, *ellipse*, or *hyperbola*. Then graph the equation.

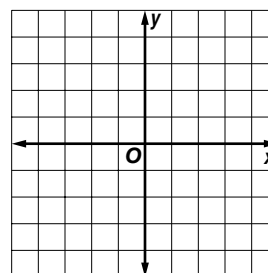
1. $x^2 - 25y^2 = 25$



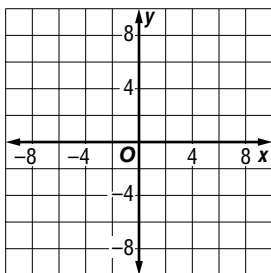
2. $9x^2 + 4y^2 = 36$



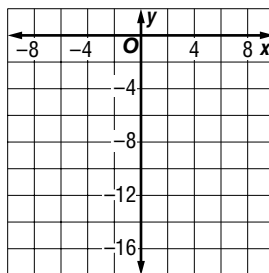
3. $x^2 + y^2 - 16 = 0$



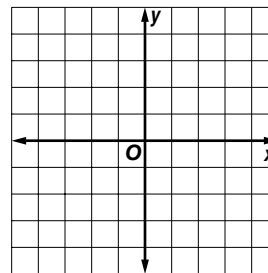
4. $x^2 + 8x + y^2 = 9$



5. $x^2 + 2x - 15 = y$



6. $100x^2 + 25y^2 = 400$



Without writing the equation in standard form, state whether the graph of each equation is a *parabola*, *circle*, *ellipse*, or *hyperbola*.

7. $9x^2 + 4y^2 = 36$

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

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

10. $y = 2x^2 - 4x - 4$

11. $4y^2 - 25x^2 = 100$

12. $16x^2 + y^2 = 16$

13. $16x^2 - 4y^2 = 64$

14. $5x^2 + 5y^2 = 25$

15. $25y^2 + 9x^2 = 225$

16. $36y^2 - 4x^2 = 144$

17. $y = 4x^2 - 36x - 144$

18. $x^2 + y^2 - 144 = 0$

19. $(x + 3)^2 + (y - 1)^2 = 4$

20. $25y^2 - 50y + 4x^2 = 75$

21. $x^2 - 6y^2 + 9 = 0$

22. $x = y^2 + 5y - 6$

23. $(x + 5)^2 + y^2 = 10$

24. $25x^2 + 10y^2 - 250 = 0$