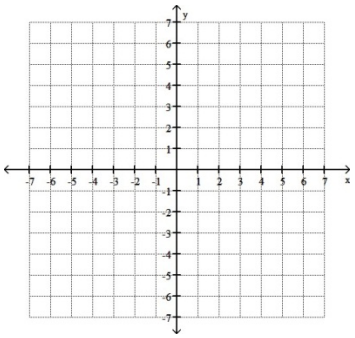
Math 1010
Intermediate Algebra

Ch. 11 Circles, Ellipses, and Hyperbolas

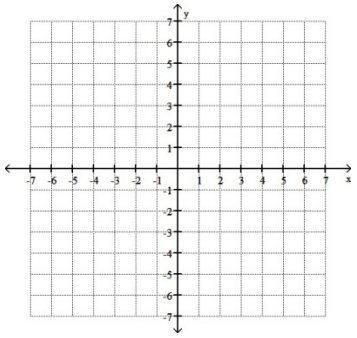
Name _____ Score_____

In 1-2, Graph each circle.

1. $(x-3)^2+(y+1)^2=25$

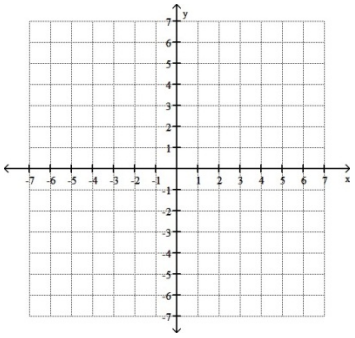


2. $x^2+y^2-2x+4y-4=0$

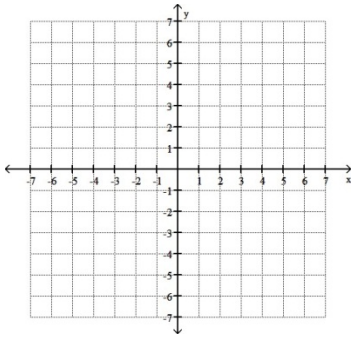


In 3-4, Graph each ellipse.

3. $49x^2+4y^2=196$

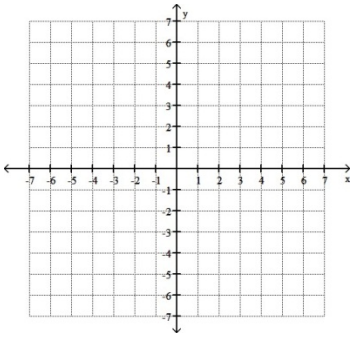


4. $\dfrac{(x+1)^2}{4}+\dfrac{(y-2)^2}{49}=1$

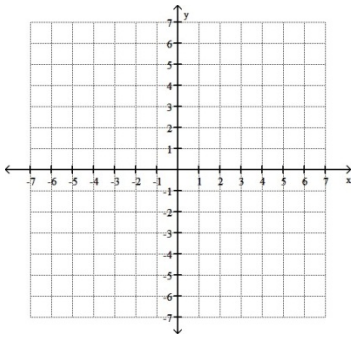


In 5-10, Graph each hyperbola.

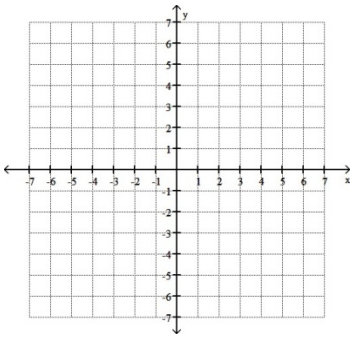
5. $\dfrac{x^2}{16}-\dfrac{y^2}{9}=1$



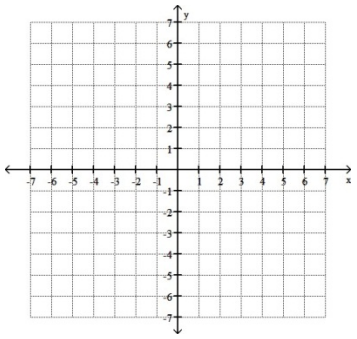
6. $\dfrac{y^2}{4}-\dfrac{x^2}{25}=1$



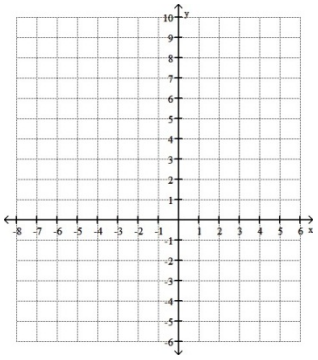
7. $9y^2 - 25x^2 = 225$



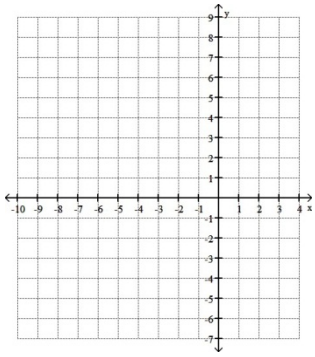
8. $x^2 - 3y^2 = 12$



9. $\frac{(x+1)^2}{4} - \frac{(y-2)^2}{49} = 1$



10. $\frac{(y-1)^2}{4} - \frac{(x+3)^2}{25} = 1$



In 11-19, identify each equation as a parabola, circle, ellipse, or hyperbola.

11. $x^2 - y^2 = 16$

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

13. $4x^2 + y^2 = 16$

14. $y^2 = 36 - x^2$

15. $x^2 - 2y = 0$

16. $9x^2 + 25y^2 = 225$

17. $9x^2 = 144 + 16y^2$

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

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

20. In your own words, explain how to determine the type of conic section based on the equation.