

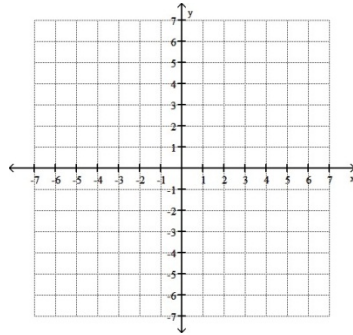
Math 1010
Intermediate Algebra
11.3 The Hyperbola

Name _____

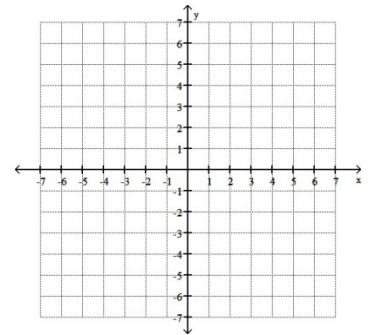
Score _____

In 1-8, Graph each hyperbola.

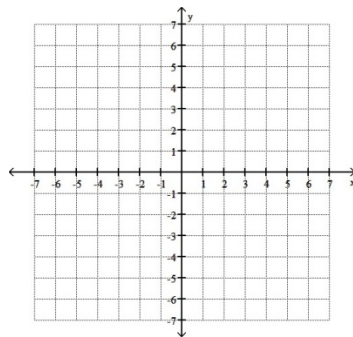
1. $\frac{x^2}{16} - \frac{y^2}{9} = 1$



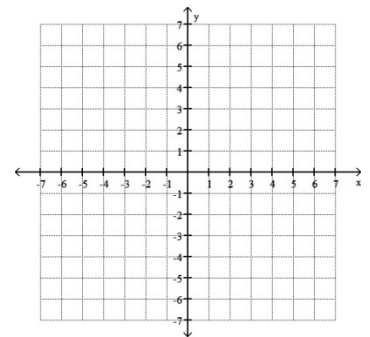
2. $\frac{y^2}{4} - \frac{x^2}{25} = 1$



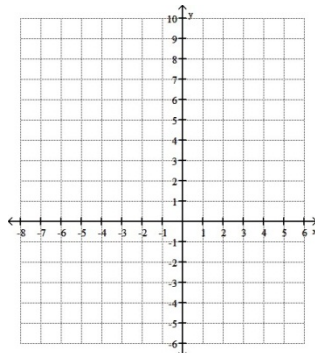
3. $9y^2 - 25x^2 = 225$



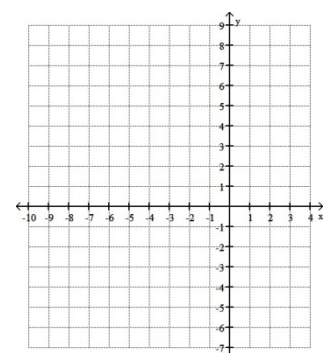
4. $x^2 - 3y^2 = 12$



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

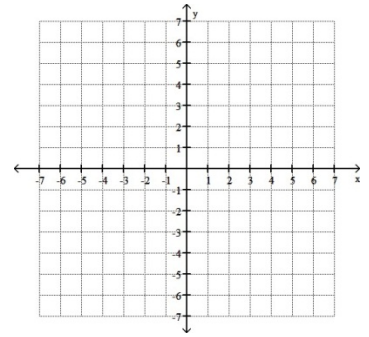
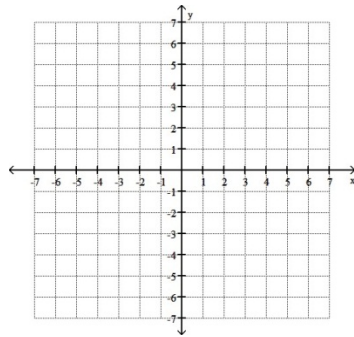


6. $\frac{(y-1)^2}{4} - \frac{(x+3)^2}{25} = 1$



$$7. \frac{(y+2)^2}{9} - x^2 = 1$$

$$8. \frac{x^2}{20} - \frac{(y-3)^2}{10} = 1$$



In 9-17, identify each equation as a parabola, circle, ellipse, or hyperbola.

$$9. x^2 - y^2 = 16$$

$$10. x^2 + y^2 = 16$$

$$11. 4x^2 + y^2 = 16$$

$$12. y^2 = 36 - x^2$$

$$13. x^2 - 2y = 0$$

$$14. 9x^2 + 25y^2 = 225$$

$$15. 9x^2 = 144 + 16y^2$$

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

$$17. y^2 = 4 + x^2$$

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