

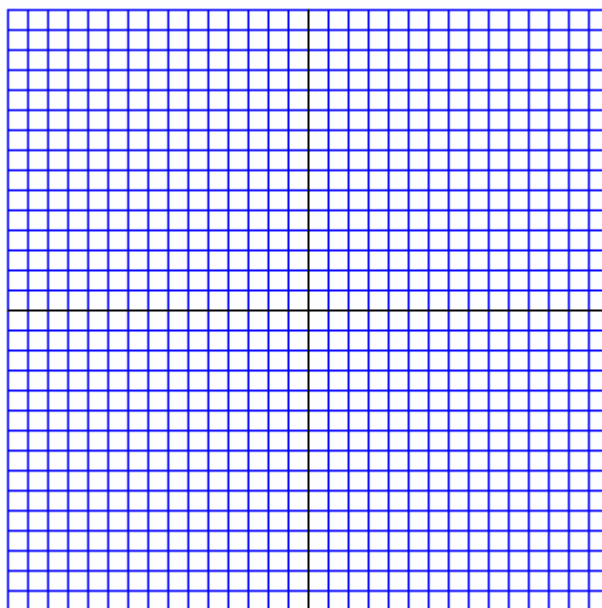
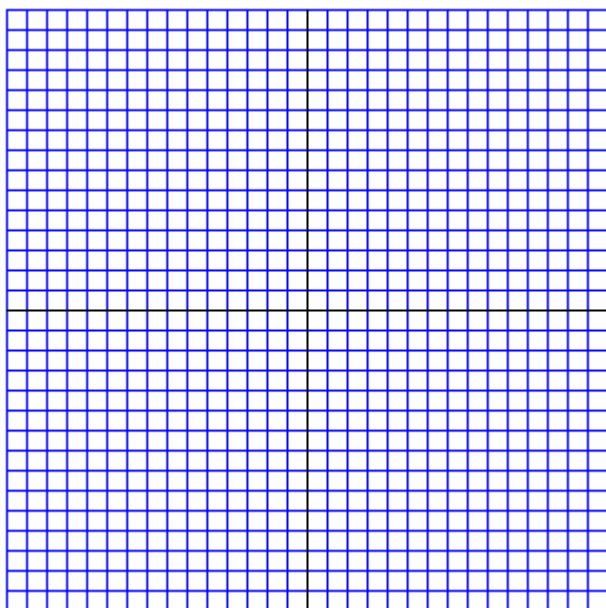
**For questions 1 – 3, use the points  $(-3, 2)$  and  $(5, -4)$ .**

1. Find the distance between the points.
  
  
  
  
  
  
  
  
  
  
2. Write the equation of the line that goes through the point  $(4, 6)$  and is parallel to the line through the given points.
  
  
  
  
  
  
  
  
  
  
3. Write the equation of the line that is the perpendicular bisector of the segment connecting the two points.

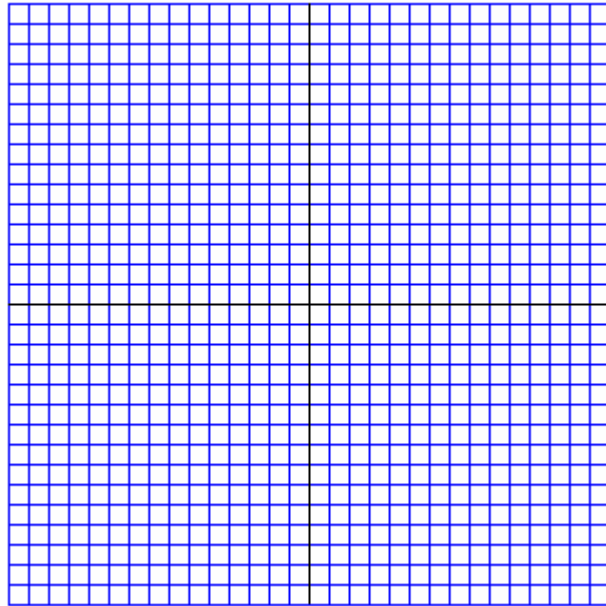
**For questions 4 – 6, graph each equation. Find the foci where appropriate.**

4.  $(x-2)^2 + (y+1)^2 = 16$

5.  $\frac{(y+3)^2}{16} + \frac{(x-4)^2}{25} = 1$



6.  $\frac{(y-2)^2}{25} - \frac{(x-4)^2}{144} = 1$



**For questions 7 – 10, use the information provided to write the equation of the given figure.**

7. Write the equation of a circle with center  $(-3, 4)$  and radius = 8.

8. Write the equation of the ellipse with center at  $(2, 3)$  and one vertex at  $(2, 10)$  and one focus at  $(2, 6)$ .

9. Write the equation of the hyperbola with foci at  $(-7, 2)$  and  $(4, 2)$  and vertices at  $(-4, 2)$  and  $(1, 2)$ .

10. Write the equation of the asymptotes for the hyperbola in question 9.