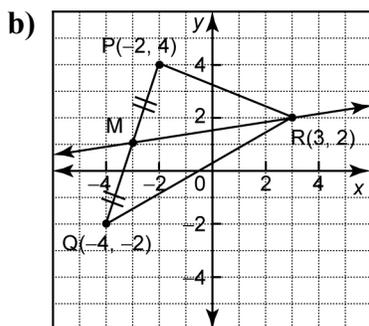
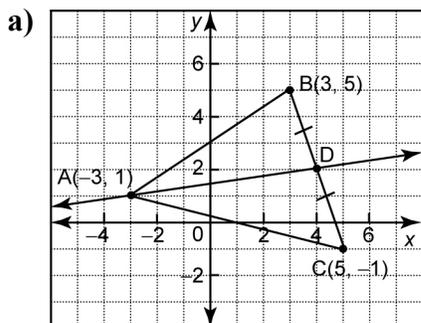
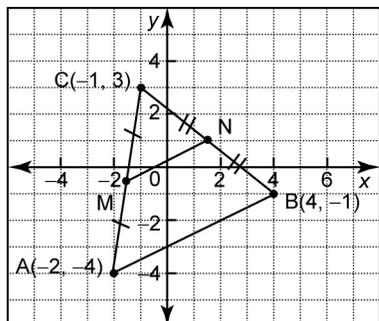


# Section 3.2 Practice Master

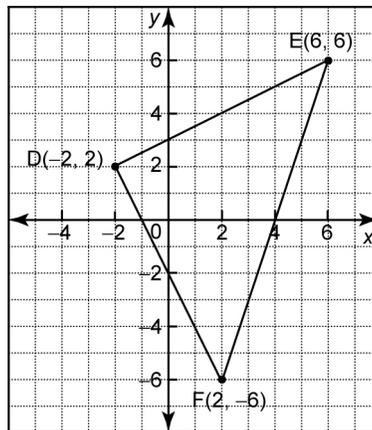
1. Determine an equation for the line shown with each triangle.



2. a) Verify that AB and MN are parallel.  
 b) Verify that MN is half the length of AB.



3. a) Verify that  $\triangle DEF$  is isosceles.



b) Verify that the median from vertex D is also an altitude of the triangle.

4. **Use Technology** Use geometry software to verify your answers to question 3.

5. a) Draw the triangle with vertices  $D(-2, -5)$ ,  $E(2, 3)$ , and  $F(4, -3)$ .  
 b) Find the lengths of the sides of  $\triangle DEF$ .  
 c) Find the slopes of the sides of  $\triangle DEF$ .  
 d) Classify  $\triangle DEF$ . Explain your reasoning.

6. **Use Technology** Use geometry software to verify your answers to question 5.

7. a) Draw the triangle with vertices  $A(-14, 6)$ ,  $B(2, 0)$ , and  $C(-10, -6)$ .  
 b) Determine the coordinates of D, the midpoint of AB, and E, the midpoint of AC.  
 c) Verify that DE is parallel to BC.  
 d) Verify that BC is twice the length of DE.