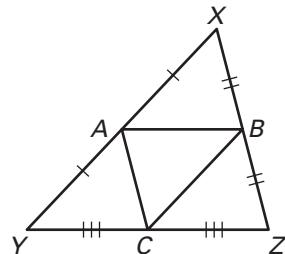


**Practice B**

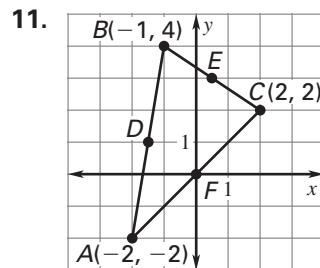
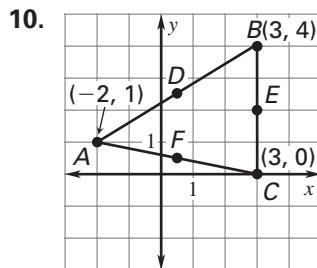
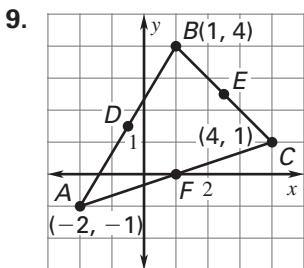
For use with pages 287–293

Use the diagram of  $\triangle XYZ$  where  $A$ ,  $B$ , and  $C$  are the midpoints of the sides.

1.  $\overline{AB} \parallel ?$
2.  $\overline{XY} \parallel ?$
3. If  $AC = 3$ , then  $XZ = ?$ .
4. If  $YZ = 7$ , then  $AB = ?$ .
5. If  $AC = 3m$ , then  $XZ = ?$ .
6. If  $XY = m + 1$  and  $BC = m - 3$ , then  $XY = ?$ .
7. If  $AC = m - 2$  and  $XZ = m + 4$ , then  $AC = ?$ .
8. If  $BC = \frac{3}{4} AC$  and  $XZ = 8$ , then  $BC = ?$ .



Find the coordinates of the endpoints of each midsegment.



Use the slope and Distance Formula to verify the Midsegment Theorem for the indicated midsegment.

12.  $\overline{DE}$  in Exercise 9
13.  $\overline{DF}$  in Exercise 10
14.  $\overline{DE}$  in Exercise 11

In Exercises 15 and 16, you are given the midpoints of the sides of a triangle. Find the coordinates of the vertices of the triangle.

15.  $L(3, 2)$ ,  $M(1, 3)$ ,  $N(1, 1)$
16.  $L(3, 6)$ ,  $M(5, 5)$ ,  $N(2, 2)$

Find the perimeter of  $\triangle ABC$ .

17. Given:  $AX = 2$ ,  $XY = 3$ ,  $BC = 9$
18. Given:  $XZ = 5$ ,  $ZY = 3$ ,  $XY = 7$

