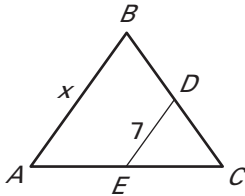


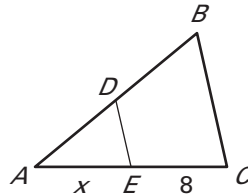
**LESSON**  
**5.1**
**Practice B**
*For use with pages 294–301*

$\overline{DE}$  is a midsegment of  $\triangle ABC$ . Find the value of  $x$ .

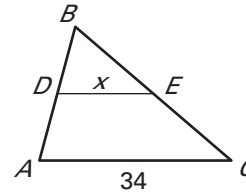
1.



2.



3.



In  $\triangle JKL$ ,  $\overline{JR} \cong \overline{RK}$ ,  $\overline{KS} \cong \overline{SL}$ , and  $\overline{JT} \cong \overline{TL}$ . Copy and complete the statement.

4.  $\overline{RS} \parallel$  ?

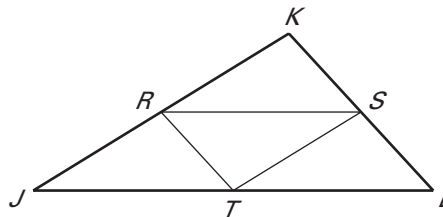
5.  $\overline{ST} \parallel$  ?

6.  $\overline{KL} \parallel$  ?

7.  $\overline{SL} \cong$  ?  $\cong$  ?

8.  $\overline{JR} \cong$  ?  $\cong$  ?

9.  $\overline{JT} \cong$  ?  $\cong$  ?

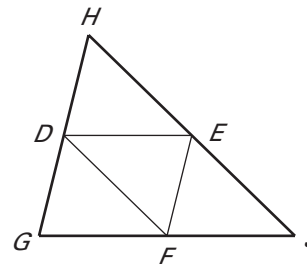


Place the figure in a coordinate plane in a convenient way. Assign coordinates to each vertex.

10. Right triangle: leg lengths are 5 units and 3 units
11. Rectangle: length is 7 units and width is 4 units
12. Square: side length is 6 units
13. Isosceles right triangle: leg length is 12 units

Use  $\triangle GHJ$ , where  $D$ ,  $E$ , and  $F$  are midpoints of the sides.

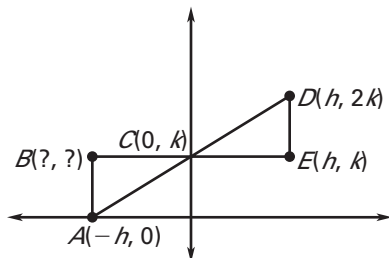
14. If  $DE = 4x + 5$  and  $GJ = 3x + 25$ , what is  $DE$ ?
15. If  $EF = 2x + 7$  and  $GH = 5x - 1$ , what is  $EF$ ?
16. If  $HJ = 8x - 2$  and  $DF = 2x + 11$ , what is  $HJ$ ?



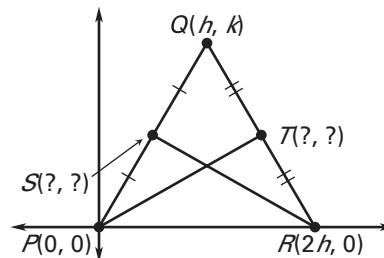
LESSON  
5.1**Practice B** *continued*  
For use with pages 294–301

Find the unknown coordinates of the point(s) in the figure. Then show that the given statement is true.

17.  $\triangle ABC \cong \triangle DEC$

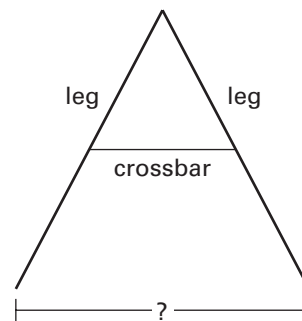


18.  $\overline{PT} \cong \overline{SR}$



19. The coordinates of  $\triangle ABC$  are  $A(0, 5)$ ,  $B(8, 20)$ , and  $C(0, 26)$ . Find the length of each side and the perimeter of  $\triangle ABC$ . Then find the perimeter of the triangle formed by connecting the three midsegments of  $\triangle ABC$ .

20. **Swing Set** You are assembling the frame for a swing set. The horizontal crossbars in the kit you purchased are each 36 inches long. You attach the crossbars at the midpoints of the legs. At each end of the frame, how far apart will the bottoms of the legs be when the frame is assembled? *Explain.*



21. **A-Frame House** In an A-frame house, the floor of the second level, labeled  $\overline{LM}$ , is closer to the first floor,  $\overline{NP}$ , than midsegment  $\overline{JK}$ . If  $\overline{JK}$  is 14 feet long, can  $\overline{LM}$  be 12 feet long? 14 feet long? 20 feet long? 24 feet long? 30 feet long? *Explain.*

