

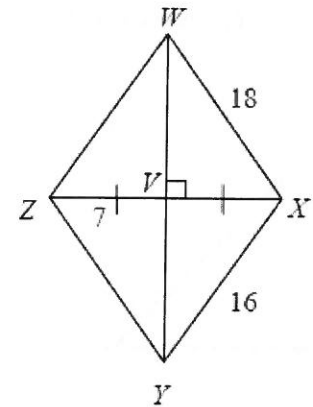
Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

### 6.1 Practice Problems

- 1) The Perpendicular Bisector Theorem states that if a point is on the perpendicular bisector of a segment, then it is \_\_\_\_\_ from the endpoints of the segment.
- 2) The Angle Bisector Theorem states that if a point is on the bisector of an angle, then the point is equidistant from the \_\_\_\_\_ of the angle.

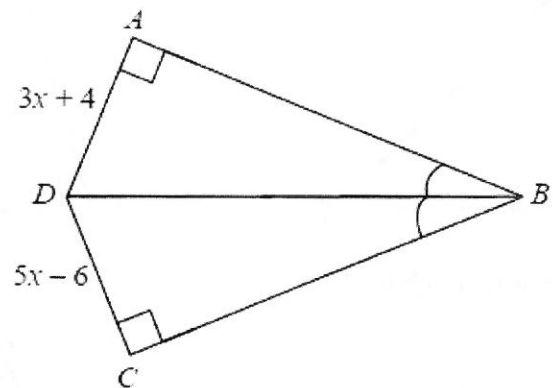
Use the figure at the right for exercises 3-6.

- 3) How is  $\overline{WY}$  related to  $\overline{ZX}$ ?
- 4) Find  $WZ$
- 5) Find  $ZY$
- 6) Find  $VX$

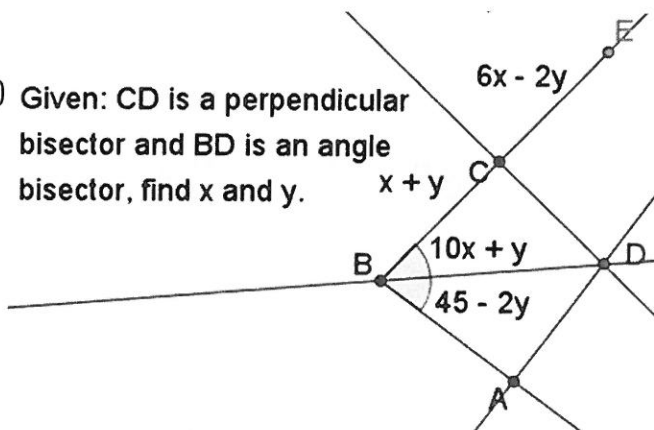


Use the figure at the right for exercises 10-12.

- 7) Find the value of  $x$ .
- 8) Find  $AD$
- 9) Find  $CD$

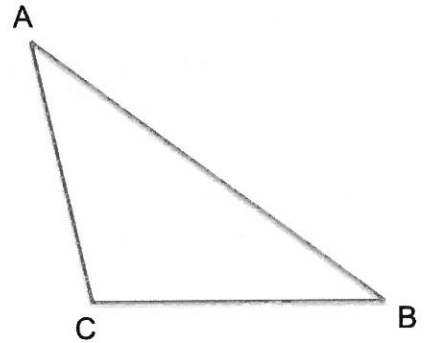
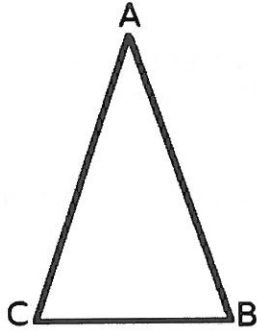
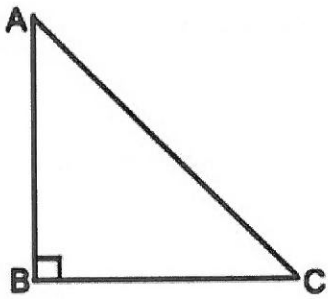


- 10) Given:  $CD$  is a perpendicular bisector and  $BD$  is an angle bisector, find  $x$  and  $y$ .

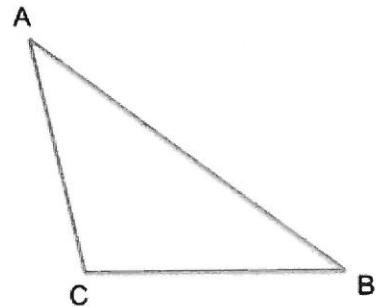
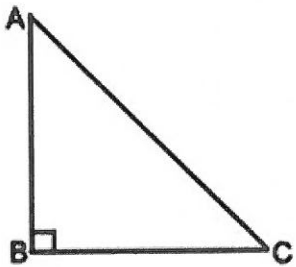


11 ) Construct each given segment on each triangle. Be sure to properly mark each picture.

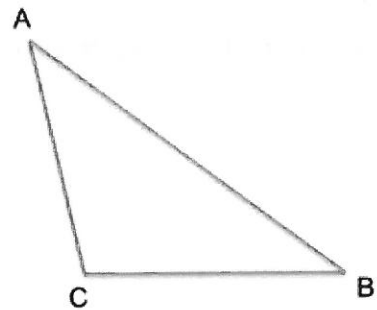
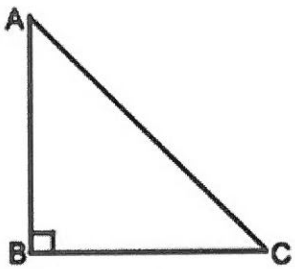
**Angle Bisectors through angle A**



**Perpendicular bisectors of segment BC**



**Altitudes through angle A**



**Medians through angle A**

