## **Practice 1-5**

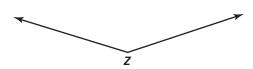
**Basic Constructions** 

Construct each figure as directed.

- **1.** Construct  $\overline{AB}$  congruent to  $\overline{XY}$ . Check your work with a ruler.
- **2.** Construct the perpendicular bisector of  $\overline{XY}$ .



- **3.** Construct a triangle whose sides are all the same length as  $\overline{XY}$ .
- **4.** Construct the angle bisector of  $\angle Z$ .

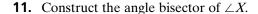


Check your work with a protractor.

- **5. a.** Construct a 90° angle.
  - **b.** Construct a 45° angle.
- **6.** Construct  $\overline{AB}$  so that AB = MN + OP.



- **7.** Construct  $\overline{KL}$  so that KL = OP MN.
- **8.** Construct  $\angle A$  so that  $m \angle A = m \angle 1 + m \angle 2$ .
- **9.** Construct  $\angle B$  so that  $m \angle B = m \angle 1 m \angle 2$ .
- **10.** Construct  $\angle C$  so that  $m \angle C = 2m \angle 2$ .

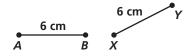


- **12.** Construct  $\angle W$  so that  $m \angle W = 2m \angle X$ .
- **13.** Construct  $\angle Z$  so that  $m \angle Z = \frac{1}{2} m \angle X$ .



## Write true or false.

**14.** 
$$\overline{AB} \cong \overline{XY}$$







- **16.** If  $m \angle A = 80$ , then  $\angle A$  is obtuse.
- 17. The perpendicular bisector of a line segment creates four  $90^{\circ}$  angles.
- **18.** If  $m \angle 1 = 45$  and  $m \angle 2 = m \angle 1$ , then  $m \angle 1 + m \angle 2 = 90$ .
- **19.** For a given  $\angle A$ ,  $\frac{1}{2} \cdot m \angle A = 2 \cdot m \angle A$ .
- **20.** If angles 3 and 4 are complementary and  $m \angle 3 = m \angle 4$ , then  $m \angle 4 = 45$ .