

1-6

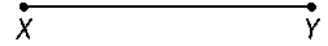
Practice

Basic Constructions

1. For each of the following, do the construction using the figures below. Check your work with a ruler or a protractor.

a. Construct \overline{AB} congruent to \overline{XY} .

b. Construct the perpendicular bisector of \overline{XY} .



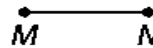
c. Construct a triangle whose sides are all the same length as \overline{XY} .

2. Use the segments \overline{MN} and \overline{OP} for each of the following:

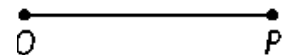
a. Construct \overline{AB} so that $AB = MN + OP$.

b. Construct \overline{KL} so that $KL = OP - MN$.

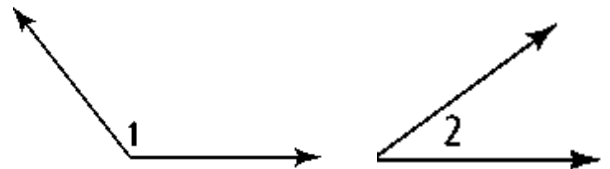
c. Construct the perpendicular bisector of \overline{MN} .



d. Construct the perpendicular bisector of \overline{OP} .



3. Use the angles 1 and 2 for each of the following:



a. Construct $\angle A$ so that $m\angle A = m\angle 1 + m\angle 2$.

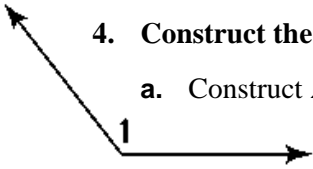
b. Construct $\angle B$ so that $m\angle B = m\angle 1 - m\angle 2$.

c. Construct $\angle C$ so that $m\angle C = 2m\angle 2$.

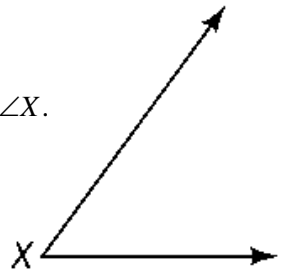
d. Construct $\angle D$ so that $m\angle D = 2m\angle 1$.

4. Construct the following using the angles given

a. Construct $\angle Y$ so that $m\angle Y = \frac{1}{2}m\angle 1$.



b. Construct $\angle Z$ so that $m\angle Z = \frac{1}{2}m\angle X$.



5. a. Use a ruler to draw a segment AB .

b. Construct a segment whose length is $\frac{1}{4}AB$.

d. Describe how can you used the previous constructions to help you create this construction.

6. a. Use a ruler to draw a segment ST .

b. Construct a right triangle with two sides that have the measure $\frac{1}{2}ST$.

7. a. Use a ruler to draw a segment Use a ruler to draw VW .

b. Construct a square $ABCD$ whose sides have length VW .