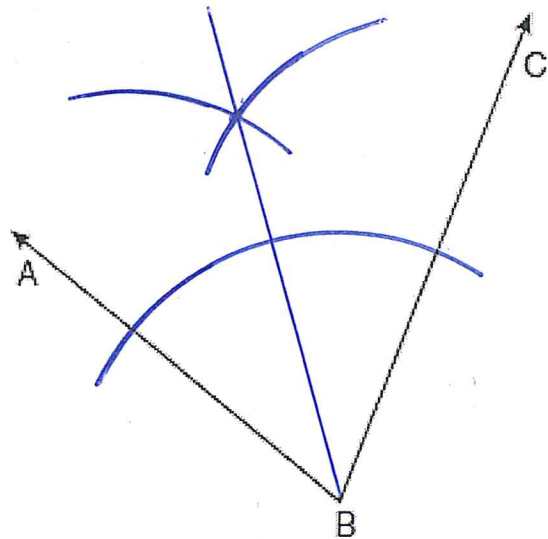Name Schlansky

Mr. Schlansky

Date _____

Geometry
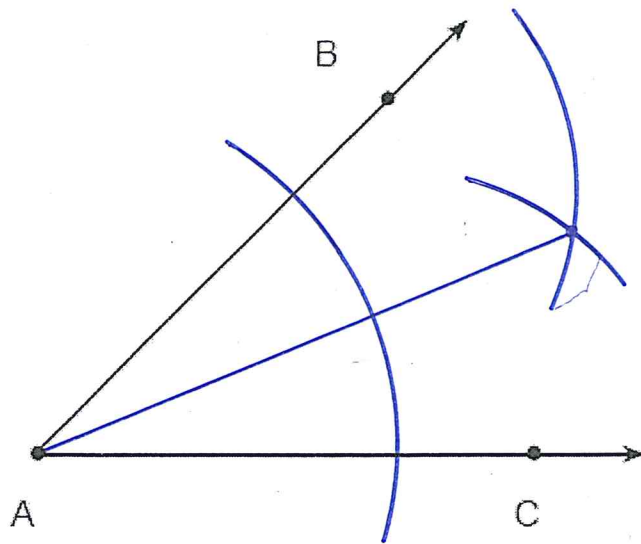
Constructing Bisectors

1. Using a compass and straightedge, construct the angle bisector of ∠ABC shown below. [Leave all construction marks.]
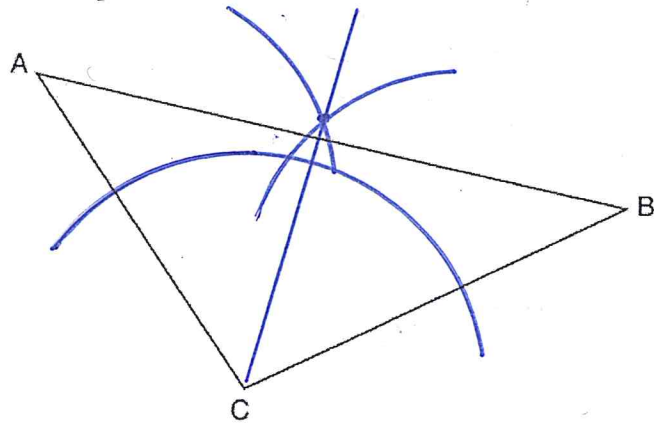

angle bisector
1) Swing arc from vertex
2) Swing equal arcs from the 2 points of intersection with the first arc
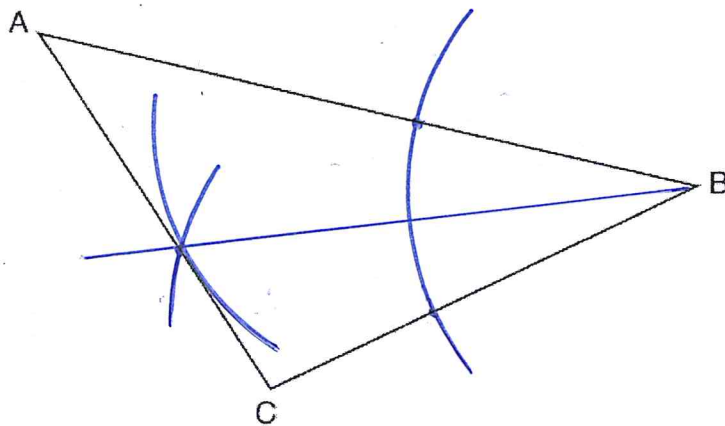3) Connect the intersection of arcs to the vertex

2. Using only a ruler and compass, construct the bisector of angle BAC in the accompanying diagram.
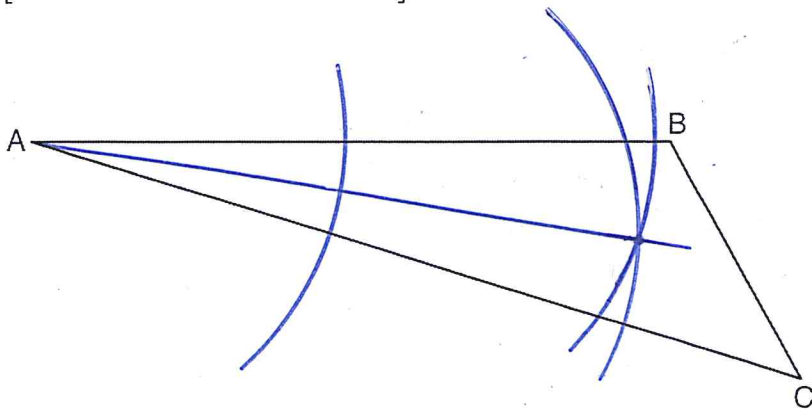
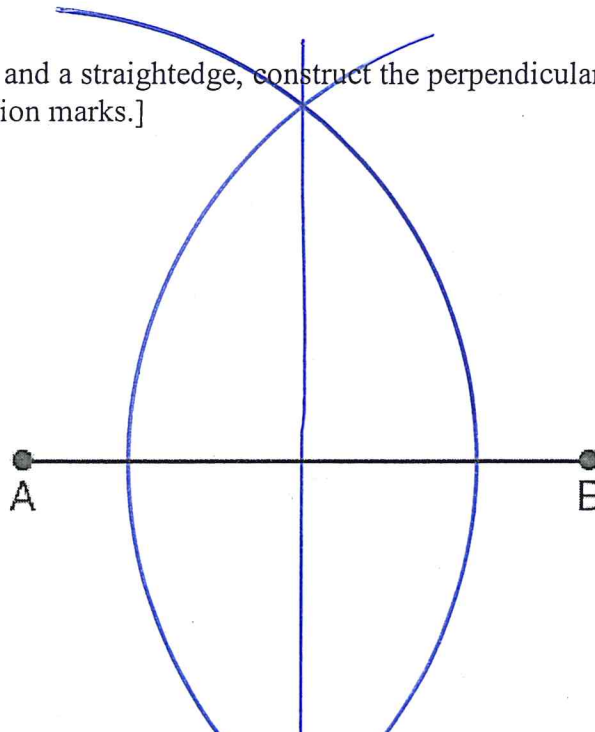3. Using a compass and straightedge, construct the angle bisector of ∠ACB in △ABC below. [Leave all construction marks.]

4. Using a compass and straightedge, construct the angle bisector of ∠ABC in △ABC below. [Leave all construction marks.]

5. Using a compass and straightedge, construct the angle bisector of ∠BAC in △ABC below. [Leave all construction marks.]

6. Using only a compass and a straightedge, construct the perpendicular bisector of $\overline{AB}$ and label it c. [Leave all construction marks.]
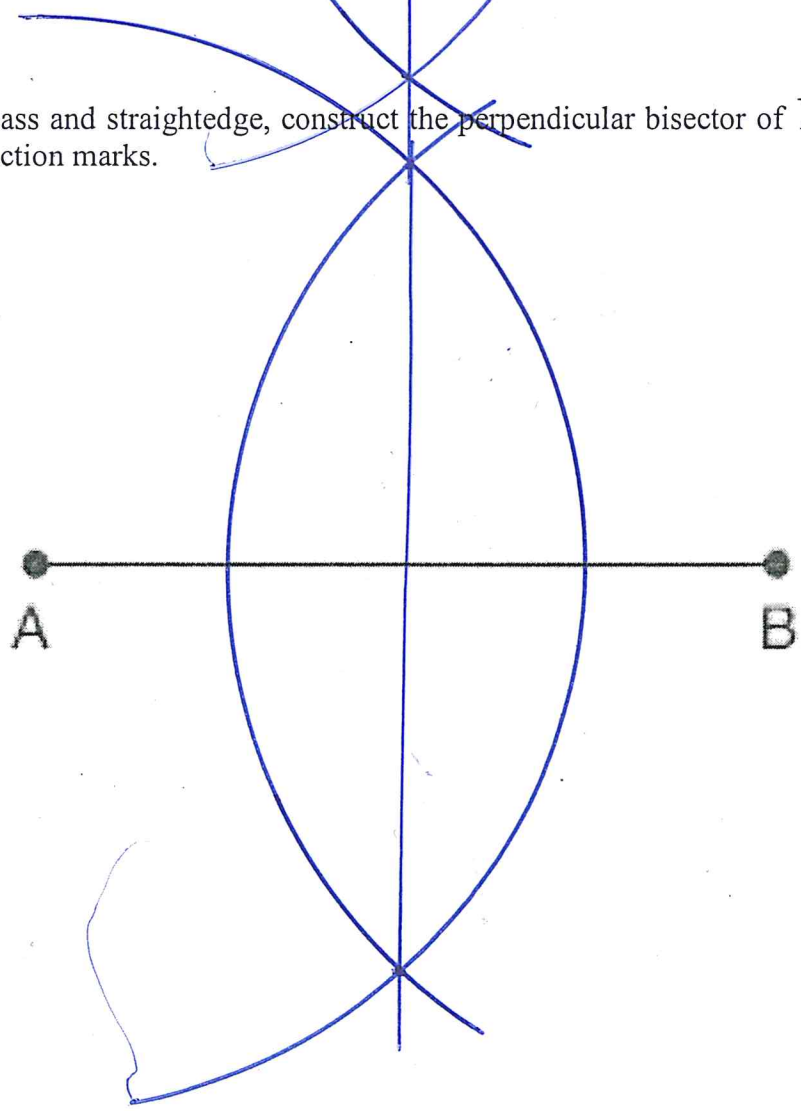
A ● ────────────────── ● B
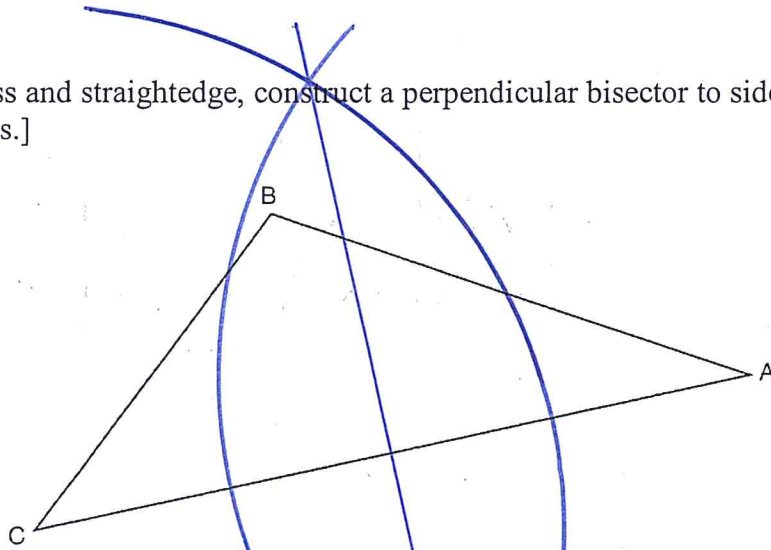
Perpendicular bisector

1) Swing equal arcs that are more than half of the line segment from each endpoint

2) Connect the 2 intersection of arcs

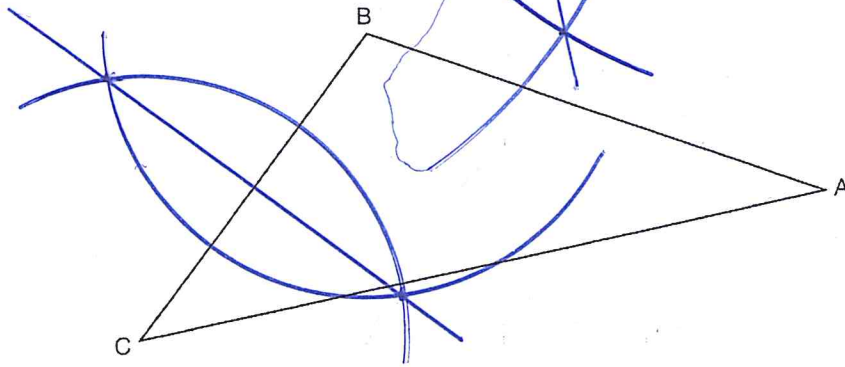7. Using a compass and straightedge, construct the perpendicular bisector of $\overline{AB}$ shown below. Show all construction marks.

A ● ────────────────── ● B

8. Using a compass and straightedge, construct a perpendicular bisector to side AC. [Leave all construction marks.]

9. Using a compass and straightedge, construct a perpendicular bisector to side BC. [Leave all construction marks.]

10. On the diagram of $\triangle ABC$ shown below, use a compass and straightedge to construct a perpendicular bisector to side BC. [Leave all construction marks.]