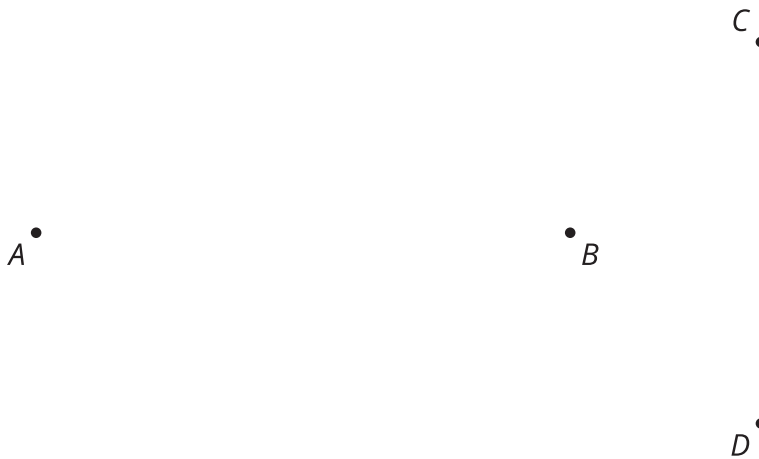# Unit 1 Lesson 3: Construction Techniques 1: Perpendicular Bisectors

1 Find All the Points! (Warm up)

Student Task Statement

Here are 2 points labeled A and B, and a line segment CD:

1. Mark 5 points that are a distance CD away from point A. How could you describe all points that are a distance CD away from point A?

2. Mark 5 points that are a distance CD away from point B. How could you describe all points that are a distance CD away from point B?

3. In a different color, mark all the points that are a distance CD away from both A and B at the same time.
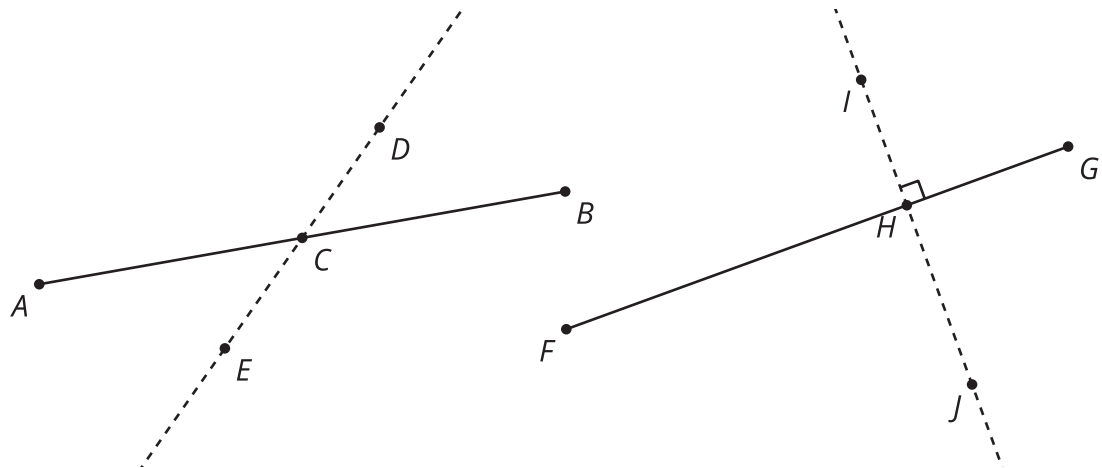
2 Human Perpendicular Bisector

Student Task Statement

Your teacher will mark points A and B on the floor. Decide where to stand so you are the same distance from point A as you are from point B. Think of another place you could stand in case someone has already taken that spot.

After everyone sits down, draw a diagram of what happened.

3 How Well Can You Slice It?

Images for Launch

Student Task Statement

Use the tools available to find the **perpendicular bisector** of segment PQ.

After coming up with a method, make a copy of segment PQ on tracing paper and look for another method to find its perpendicular bisector.

Images for Activity Synthesis

$\overline{AB} \perp \overline{CD}, AE = EB$