## 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

$\overset{¯}{AB}⊥\overset{¯}{CD},AE=EB$





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