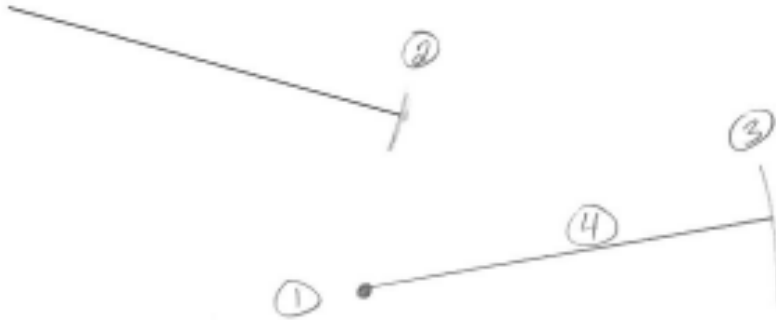


NOTE: For every construction that you do, you **MUST** leave the work, arcs, marks, etc. that you make along the way to earn full credit. Do **NOT** erase anything at the end of the problem to make your construction “look better.”

Goal: Construct a congruent segment to one given. (Copy a segment.)

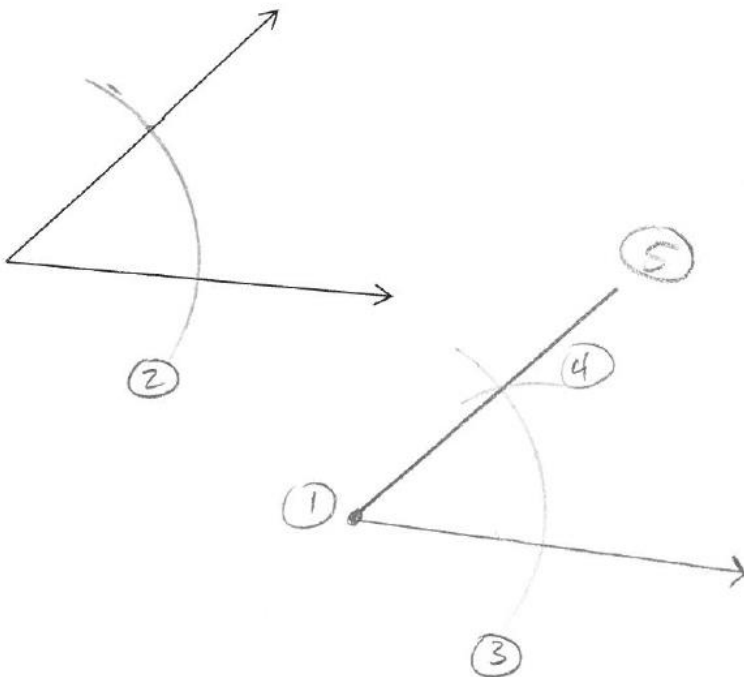
Helpful steps



- 1) Place a point for the new segment
- 2) Measure original segment with compass
- 3) Mark arc from new point and place 2<sup>nd</sup> endpoint on the arc.
- 4) Connect 2 points to form segment

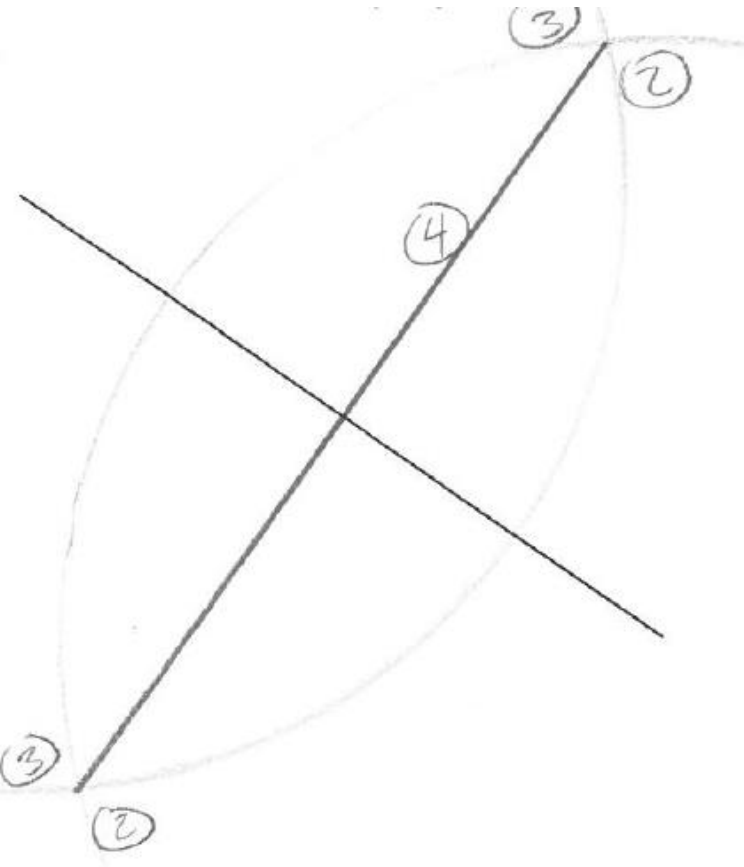
Goal: Construct a congruent angle to one given. (Copy an angle.)

Helpful steps



- 1) Draw vertex and ray for new angle
- 2) Place compass at original vertex and draw arc.
- 3) Make congruent arc at new vertex
- 4) Measure “width” of arc on original angle.
- 5) Copy “width” to new angle and connect intersection to vertex to form angle.

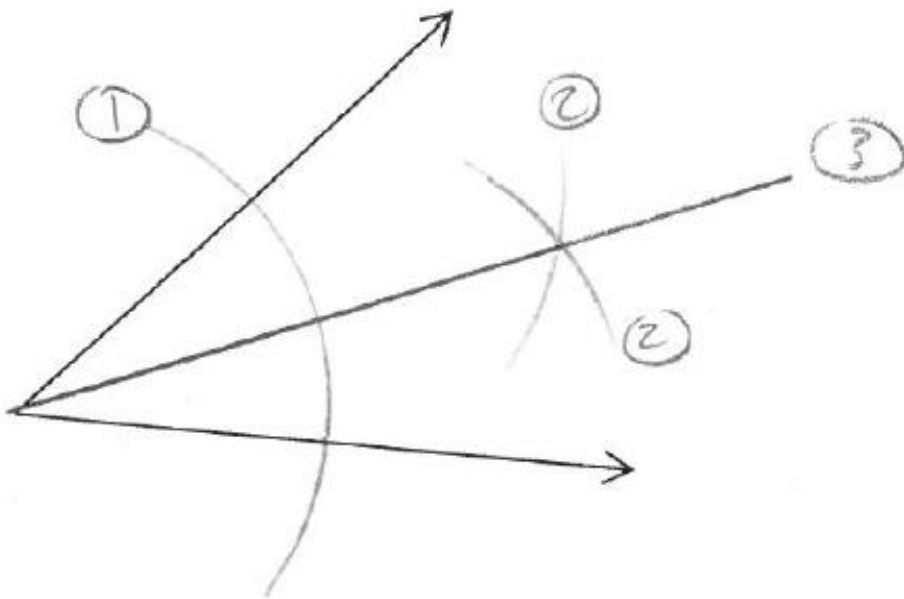
Goal: Construct the perpendicular bisector of the given segment.



#### Helpful steps

- 1) Put compass at endpoint and open more than  $\frac{1}{2}$  distance
- 2) Mark arc on both sides of line
- 3) Repeat from other side with compass the same size
- 4) Connect the 2 intersecting points to form the perpendicular bisector.

Goal: Construct the angle bisector of the given angle.



#### Helpful steps

- 1) Place compass at vertex and draw an arc that intersects both sides of angle.
- 2) Move compass to the new intersections and draw an arc from each inside the angle.
- 3) Connect that intersection to vertex to form angle bisector.