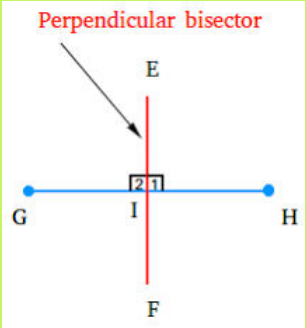
Lesson 3: Construction Techniques 1: Perpendicular Bisectors

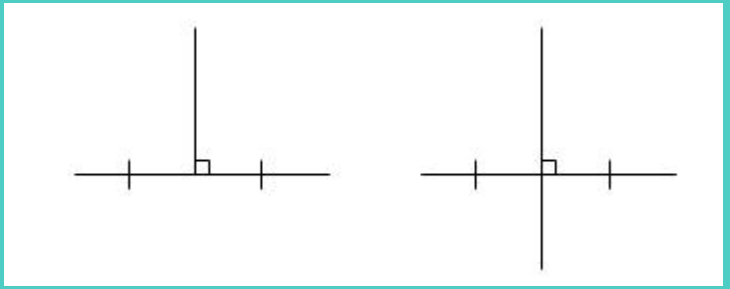


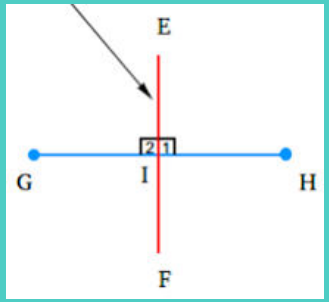
Lesson Summary

What is a perpendicular bisector?

Perpendicular bisector:

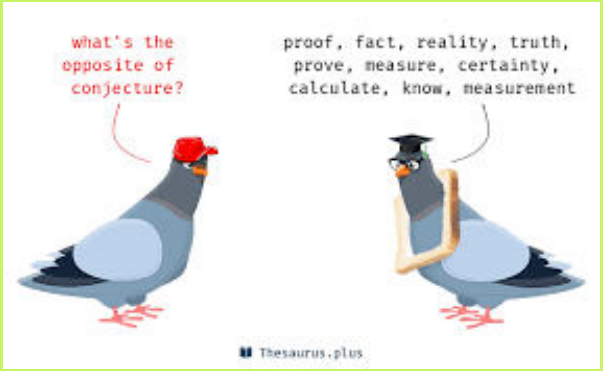
line through the midpoint of the segment that is perpendicular to it





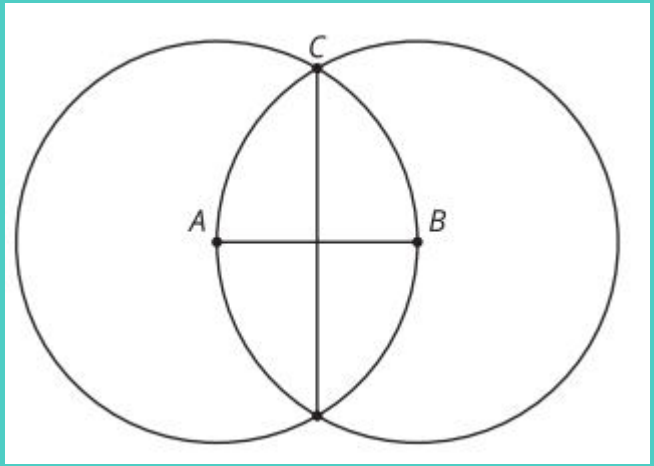
- Recall that a right angle is the angle made when we divide a straight angle into 2 congruent angles.
- Lines that intersect at right angles are called perpendicular.

What is a conjecture?



conjecture:
is a guess that hasn't been proven yet.

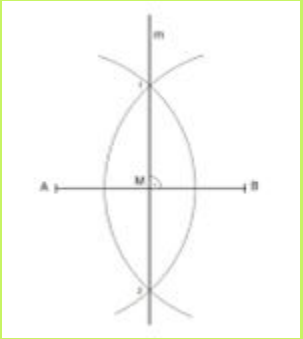
Let’s make a conjecture.

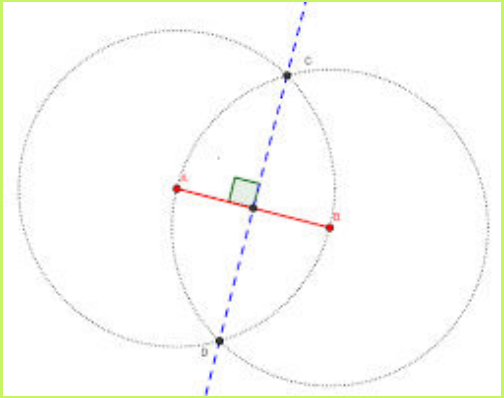


We conjectured that the perpendicular bisector of segment *AB* is the set of all points that are the same distance from *A* as they are from *B*.

How to find the perpendicular bisector:

- It can be constructed by finding points that are the same distance from the endpoints of the segment.





- Intersecting circles centered at each endpoint of the segment can be used to find points that are the same distance from each endpoint, because circles show all the points that are a given distance from their center point.

These are instructions to construct a line parallel to a given line.

Parallel lines:

- 2 lines are parallel if they don't intersect.
- 2 segments are parallel if they extend into parallel lines.