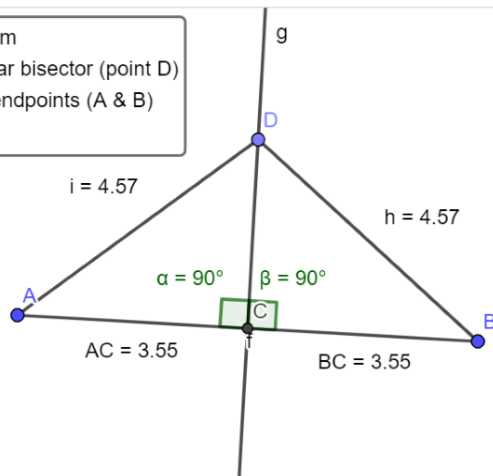


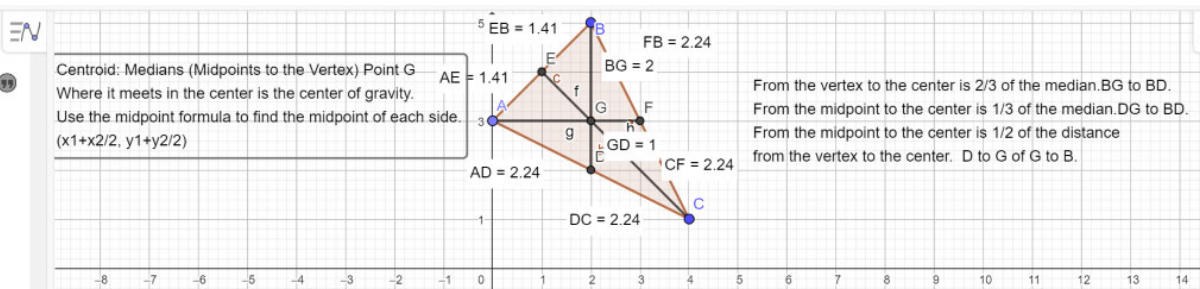
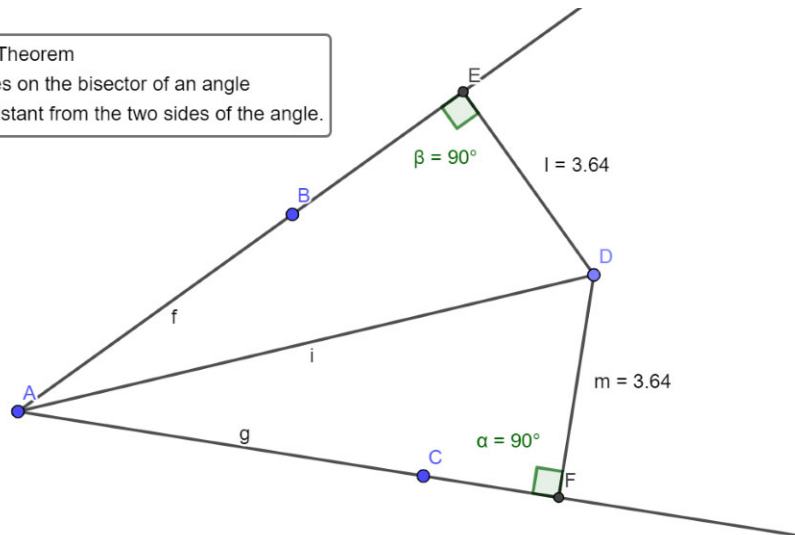
Perpendicular Bisector Theorem

If a point is on the perpendicular bisector (point D) then it is equidistant from the endpoints (A & B) of the segment.



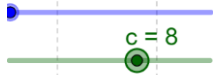
Angle Bisector Theorem

If a point (D) lies on the bisector of an angle then it is equidistant from the two sides of the angle.

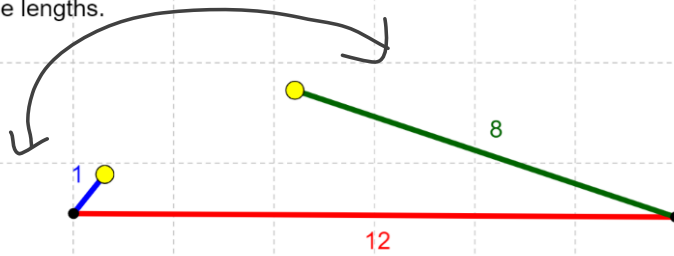


Can you make a triangle with the 3 known side lengths?

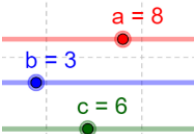
b = 1



Move the colored points above to adjust the side lengths.



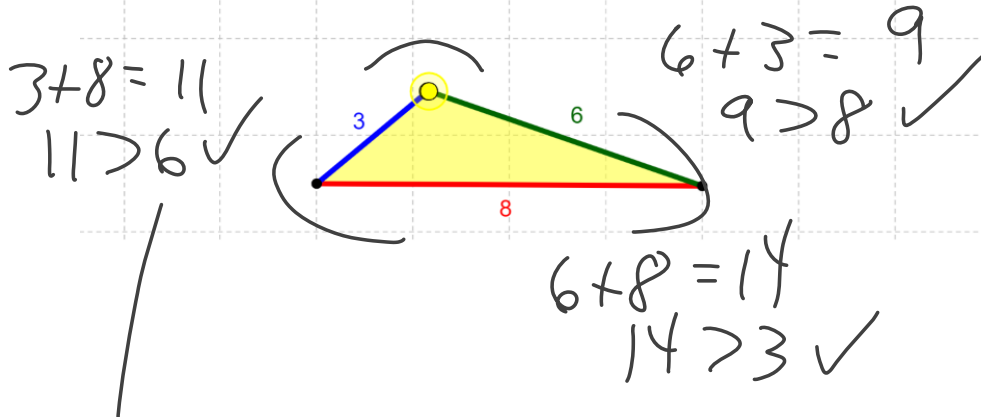
NO because $8 + 1 \neq 12$
 $9 \neq 12$



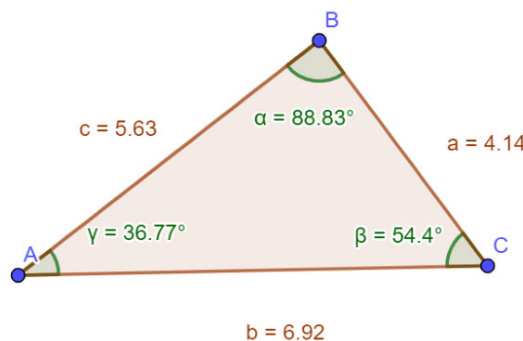
Move the colored points above to adjust the side lengths.

Can you make a triangle with the 3 known side lengths?

Yay, you made a Triangle!



in a triangle the two sides must be greater than the all



The smallest angle is across from the smallest side.
The largest angle is across from the largest side.

