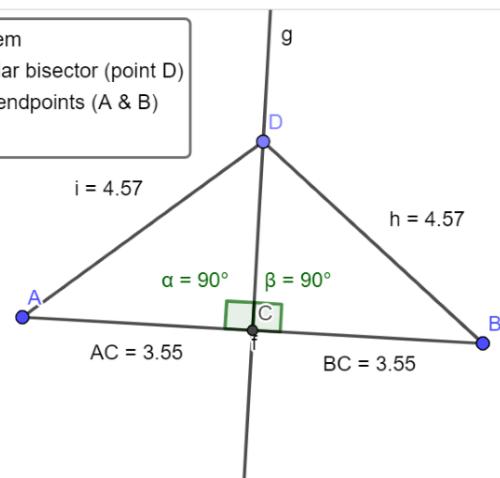


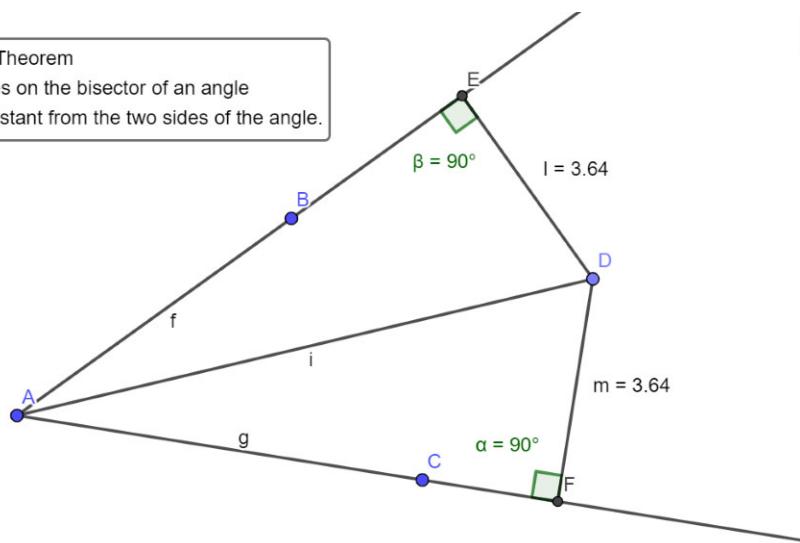
Geogebra

Tuesday, February 7, 2023 8:04 AM

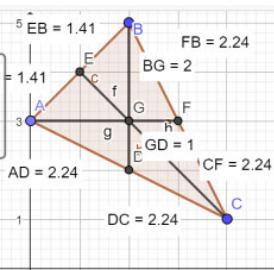
Perpendicular Bisector Theorem
If a point is on the perpendicular bisector (point D) then it is equidistant from the endpoints (A & B) of the segment.



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.



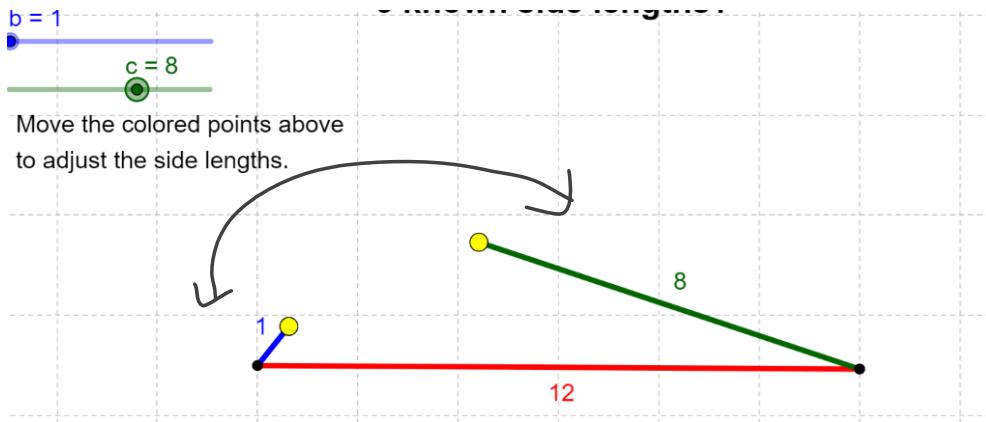
Centroid: Medians (Midpoints to the Vertex) Point G
Where it meets in the center is the center of gravity.
Use the midpoint formula to find the midpoint of each side.
($x_1+x_2/2, y_1+y_2/2$)



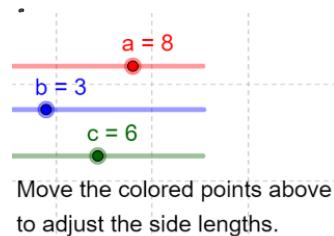
From the vertex to the center is 2/3 of the median.BG to BD.
From the midpoint to the center is 1/3 of the median.DG to BD.
From the midpoint to the center is 1/2 of the distance
from the vertex to the center. D to G of G to B.

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

$a = 12$

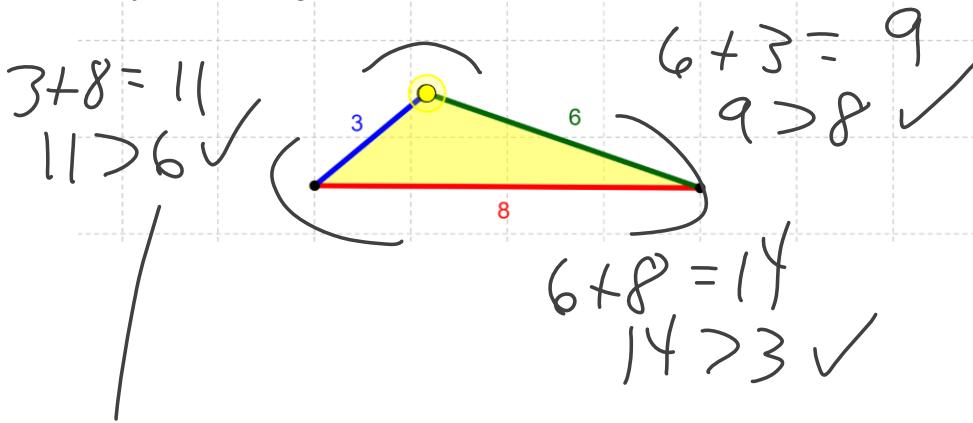


NO because $8 + 1 \not> 12$
 $9 \not> 12$

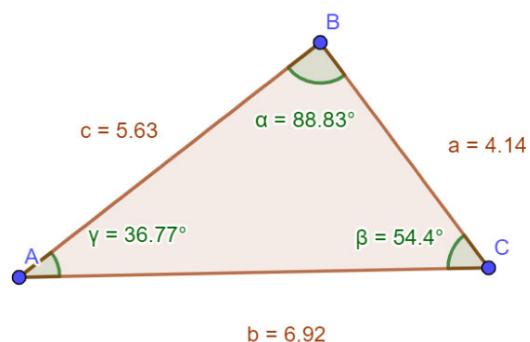


Can you make a triangle with the 3 known side lengths?

Yay, you made a Triangle!



in a triangle the two sides must be greater than all



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

