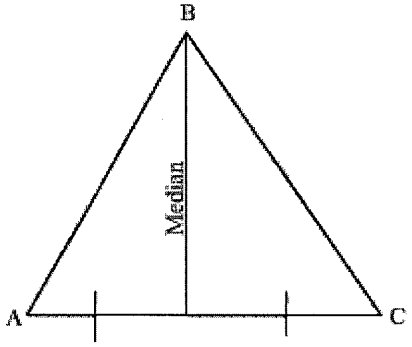
Geometry
Points of Concurrency Notes
Centroid and Orthocenter

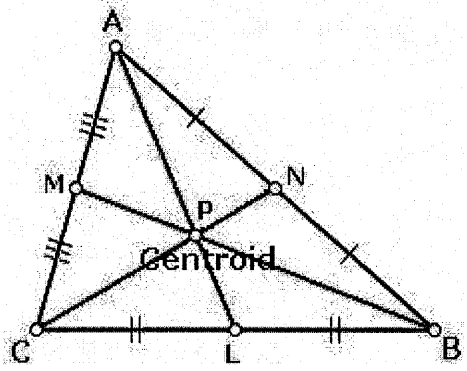
Essential Question 1: What are the properties of a median?

- A _____ of a triangle is a segment whose endpoints are a _____ of the triangle and the _____ of the opposite side.



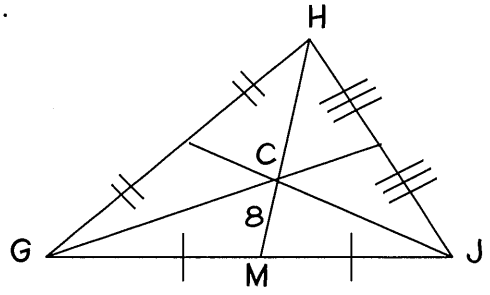
- The point of concurrency of the **medians of a triangle** is called the _____ of the triangle.
- The centroid is the _____ point of the triangle

Theorem: The medians of a triangle intersect at a point that is _____ of the distance from each vertex to the _____ of the opposite side

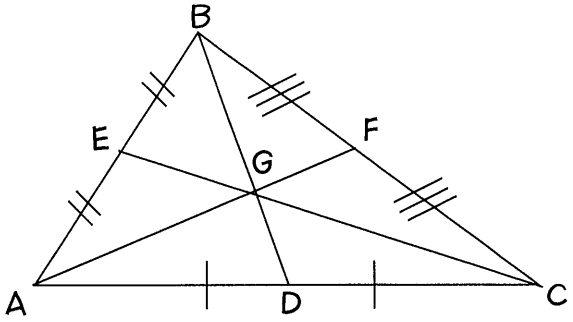


The centroid is _____ inside the triangle.

Example 1: C is the centroid of ΔΔGHJ and CM = 8. Find CH and HM.



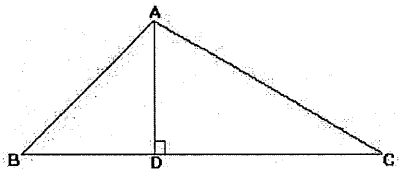
Example 2: G is the centroid of ΔΔABC. Find the value of x given FG = x + 8 and AF = 9x – 6.



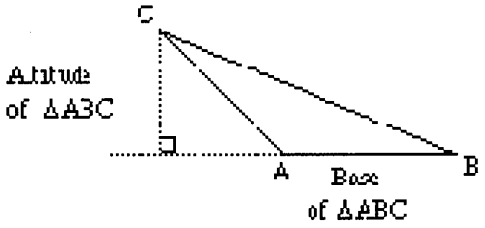
Essential Question 2: What are the properties of an altitude?

- An _____ of a triangle is the _____ segment from a _____ to the opposite _____ or to the line that contains the opposite side.

Acute



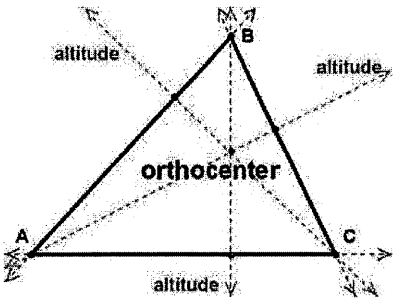
Obtuse



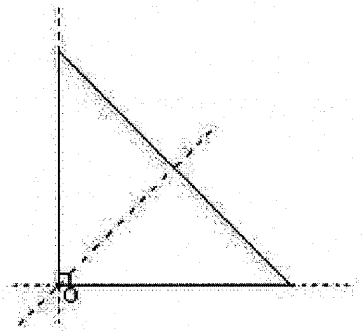
- Another word for the altitude of a triangle is the _____ of the triangle.

- The point of concurrency of the **altitudes of a triangle** is called the _____ of the triangle.

Acute



Right



Obtuse