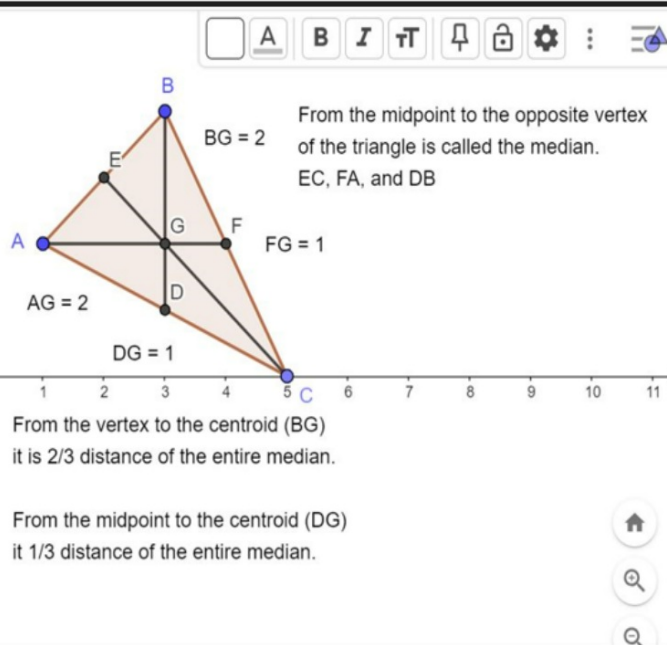The point of concurrency of the medians
of a triangle is called the CENTROID (point G).

It will always be inside the triangle.

It is known as the "center of gravity".

Ms. Stephanides

EG = 1.41
CG = 2.82

B

BG = 2

From the midpoint to the opposite vertex
of the triangle is called the median.
EC, FA, and DB

E

G

F

A

FG = 1

AG = 2

D

DG = 1

C

From the midpoint to the centroid (DG)
it is half the distance of the centroid
to the vertex (GB).

From the vertex to the centroid (BG)
it is 2/3 distance of the entire median.

From the midpoint to the centroid (DG)
it 1/3 distance of the entire median.

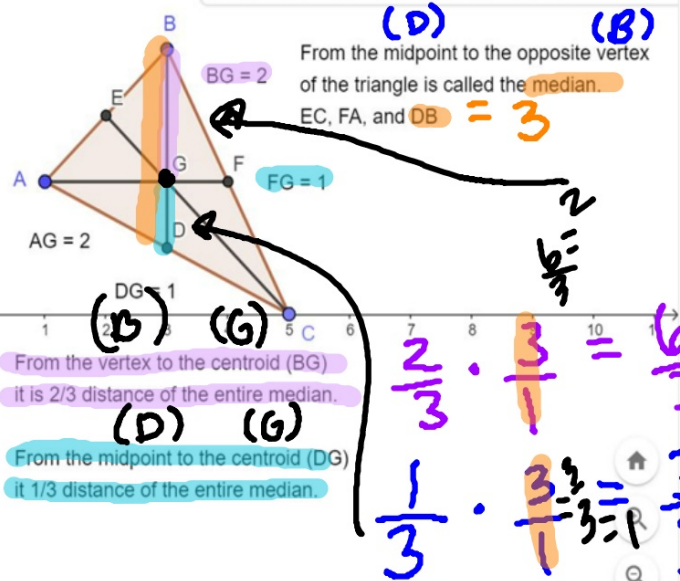A **point of concurrency** is the intersection of 3 or more lines.

The point of concurrency of the medians of a triangle is called the CENTROID (point G).

It will always be inside the triangle.

It is known as the "center of gravity".

$(3,2)$

Ms. Stephanides

EG = 1.41
CG = 2.82

AG = 2

DG = 1

BG = 2

FG = 1

(D)   (B)
From the midpoint to the opposite vertex of the triangle is called the median.
EC, FA, and DB = 3

$\frac{2}{3}$

$\frac{2}{3} \cdot \frac{3}{1} = \frac{6}{?}$

$\frac{1}{3} \cdot \frac{3}{1} \quad 3\frac{3}{3} = 1$

(D)   (6)
From the midpoint to the centroid (DG) it is half the distance of the centroid to the vertex (GB).

$\frac{1}{2}(2) = 1$

(B)   (G)
From the vertex to the centroid (BG) it is 2/3 distance of the entire median.

(D)   (G)
From the midpoint to the centroid (DG) it 1/3 distance of the entire median.

Let's Graph
(0,3) (2,5) (4,1)
on graph paper.

Find the midpoints
connect to the opposite
vertex.

What is the location of
the centroid?

*Come up with a formula
to verify!

$$\frac{x_1 + x}{2}, \frac{y_1 + y_2}{2}$$

$x_1, y_1 \quad x_2, y_2$

$$\frac{0 + 2 + 4}{3} = \frac{6}{3} = 2$$

$\left(2, 3\right)$

$$\frac{3 + 5 + 1}{3} = \frac{9}{3}$$

$= 3$

B

A

C