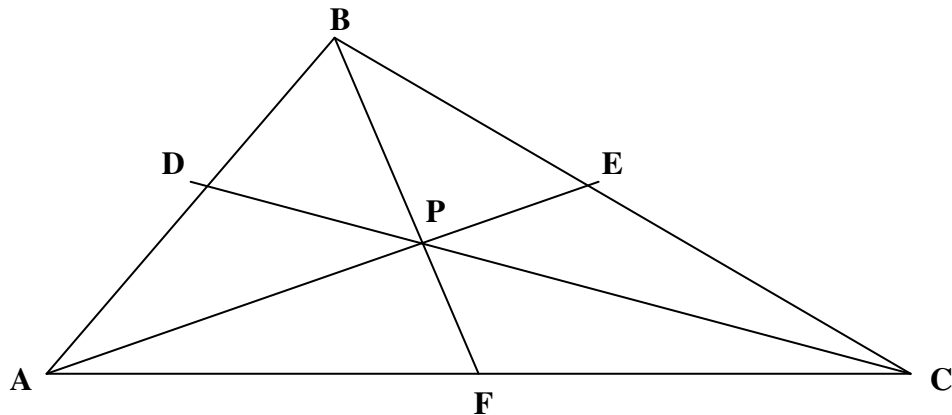


## Notes for Lesson 4-7 (part II)

*Centroid* - where all three medians of a triangle meet (the balancing point that is always inside the triangle)



In the diagram above, P is the centroid. This point is always  $\frac{2}{3}$  the length of the median away from the vertex.

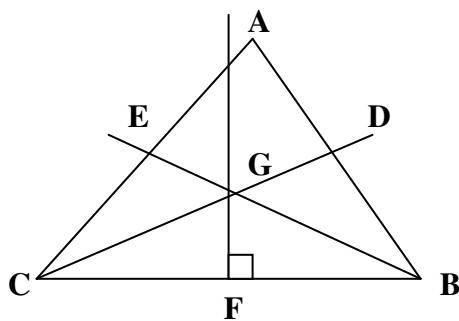
$$AP = \frac{2}{3} AE$$

$$BP = \frac{2}{3} BF$$

$$CP = \frac{2}{3} CD$$

*Isosceles triangles* - the line from the vertex angle is the median **and** the altitude

*Perpendicular bisectors* - the three perpendicular bisectors always intersect at a point that is equidistant from all three vertices



$$AG = BG = CG$$