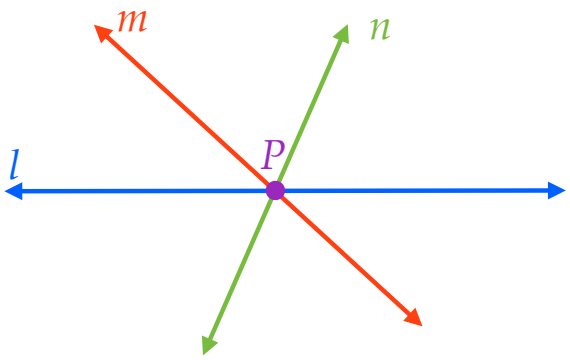
The Orthocenter and Centroid of a Triangle

Name _____

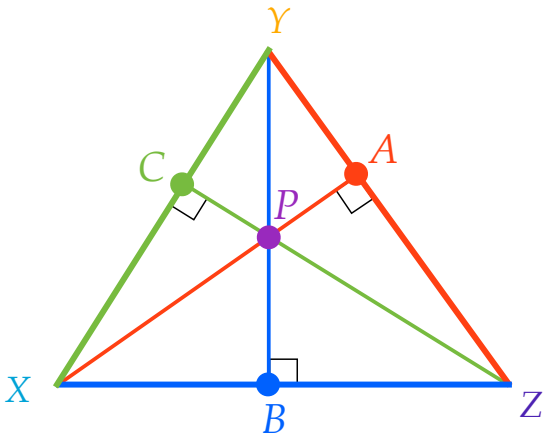
Date _____ Period _____

When three or more lines intersect at one point, the lines are said to be concurrent.



Orthocenter of a Triangle

The point of concurrency of the altitudes of a triangle.



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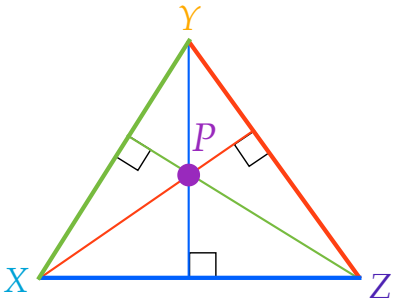
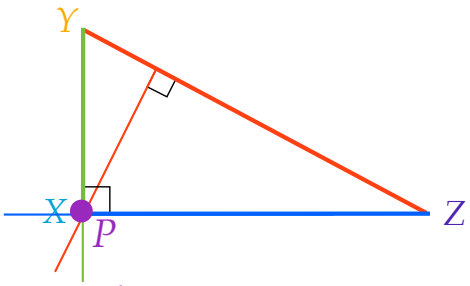
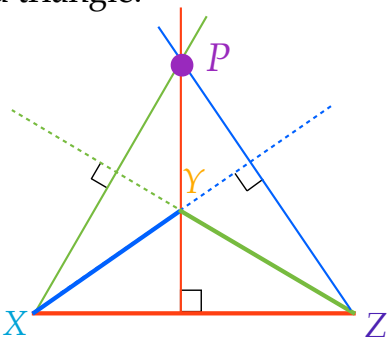


Orthocenter is inside of ΔXYZ



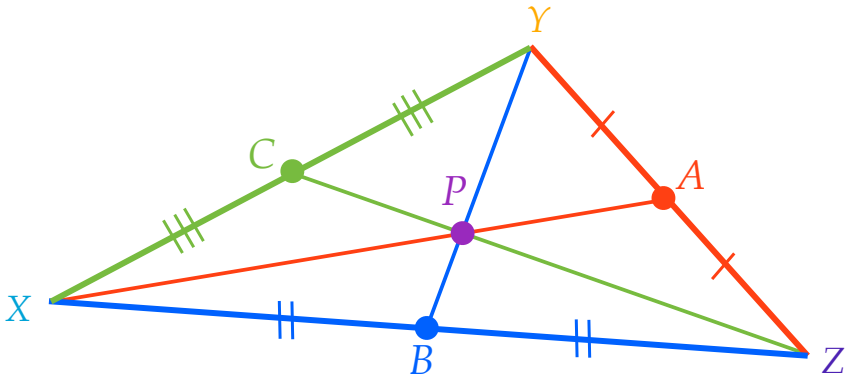
Orthocenter is on ΔXYZ vertex X (the right angle)



Orthocenter is outside of ΔXYZ

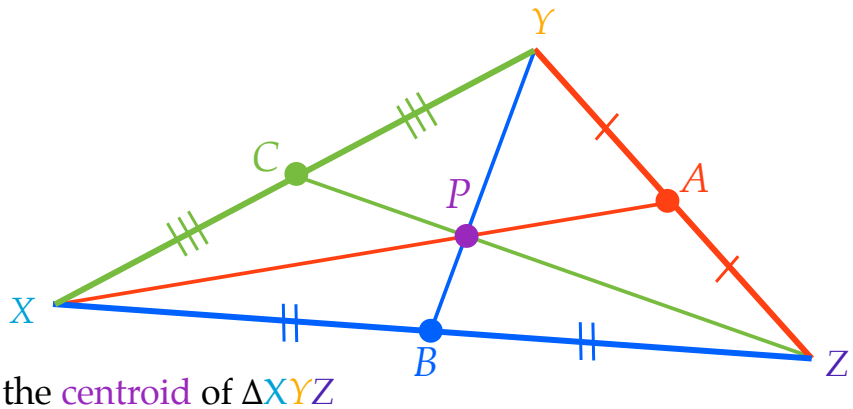
Centroid of a Triangle

The point of concurrency of the medians of a triangle.



Centroid Theorem

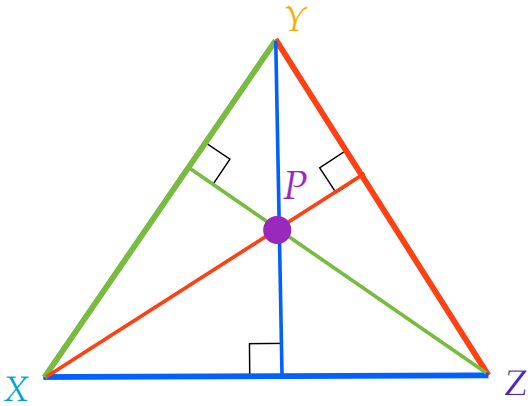
The distance from the vertex to the centroid is two-thirds to the distance from the vertex to the midpoint of the opposite side.



Point *P* is the centroid of ΔXYZ

Orthocenter of a Triangle

The point of concurrency of the altitudes of a triangle.



Centroid of a Triangle

The point of concurrency of the medians of a triangle.