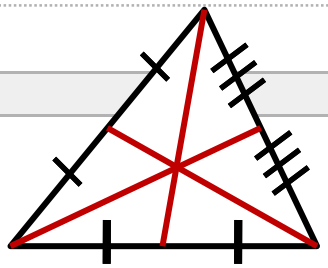
Geometry

6.3 Medians and Altitudes of Triangles



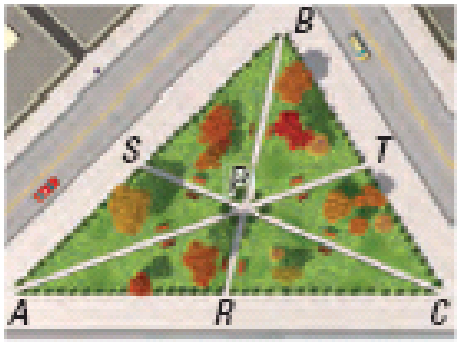
Median

Segment that connects a _____ to a _____ of side of a triangle.
Point of concurrency is called the _____.
The centroid is the _____.

Concurrency of Medians of a Triangle

The medians of a triangle intersect at a point that is _____ of the _____ from each _____ to the _____ of the _____.

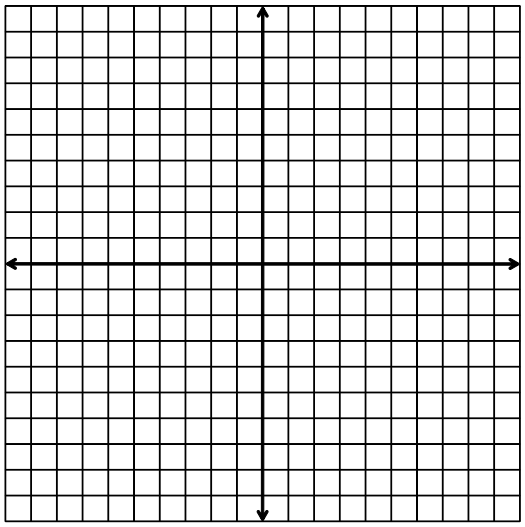
Each path goes from the midpoint of one edge to the opposite corner. The paths meet at *P*.
If *SC* = 2100 ft, find *PS* and *PC*.



If *BT* = 1000 ft, find *TC* and *BC*.

If *PT* = 800 ft, find *PA* and *TA*.

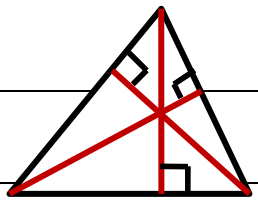
Find the coordinates of the centroid of $\triangle ABC$ with vertices $A(0, 4)$, $B(-4, -2)$, and $C(7, 1)$.



Geometry 6.3 Name: _____

Altitudes

Segment from a _____ and _____ to the opposite side of a triangle.
Point of concurrency is called the _____.

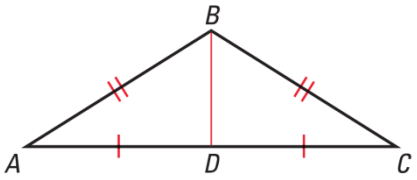


Concurrency of Altitudes of a Triangle

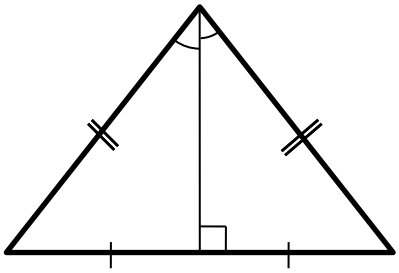
The lines containing the _____ of a triangle are _____.

Acute Δ → orthocenter _____ triangle
Right Δ → orthocenter _____ of triangle
Obtuse Δ → orthocenter _____ of triangle

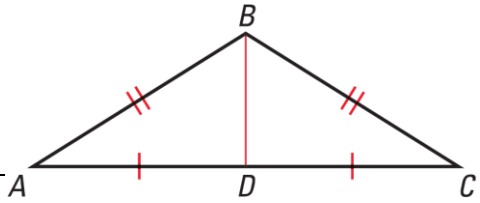
Find the orthocenter.



In an _____ triangle, the _____, _____, _____, and _____ from the vertex angle are all the _____.



Given: ΔABC is isosceles, $\overline{BD}$ is a median
Prove: $\overline{BD}$ is an angle bisector



Statements	Reasons
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.

Assignment: 314 #2, 4, 6, 8, 10, 12, 14, 16, 18, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 40, 52, 56, 58, 60, 63 = 25 total