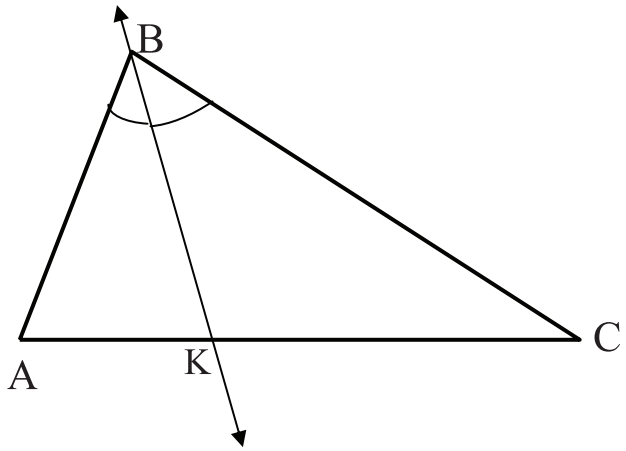
Angle Bisectors

Recall the definition of angle bisector:

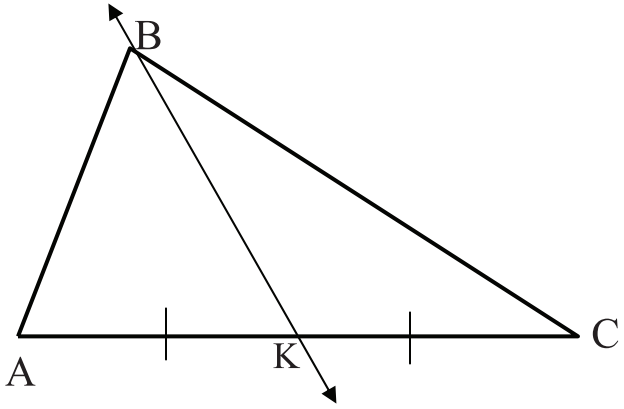
An angle bisector is a _____ that divides an angle into two _____ angles.



Medians

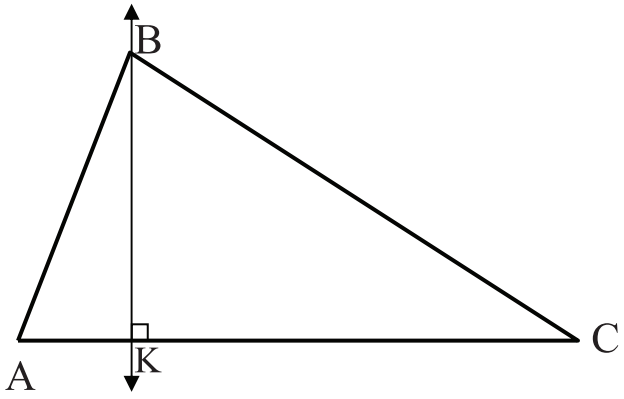
A _____is a segment whose endpoints are a _____triangle and the _____ of the side opposite the vertex.

There are three medians in every triangle.



Altitudes:

An _____ of a triangle is a segment from a _____ to the line containing the opposite side and _____ to the line containing that side.



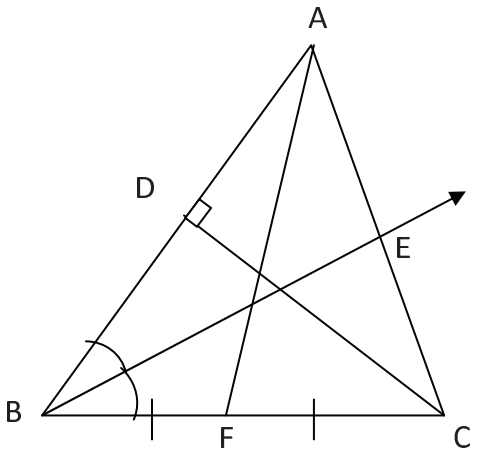
- There are **three** perpendicular bisectors in a triangle.
- There are **three** angle bisectors in a triangle.
- There are **three** medians in a triangle.
- There are **three** altitudes in a triangle.

Example:

a. Name an altitude.

b. Name an angle bisector.

c. Name a median.



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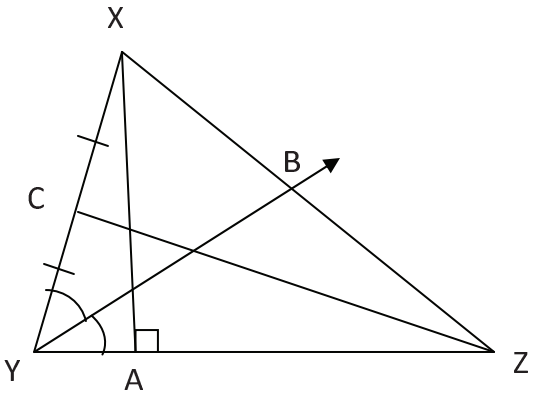

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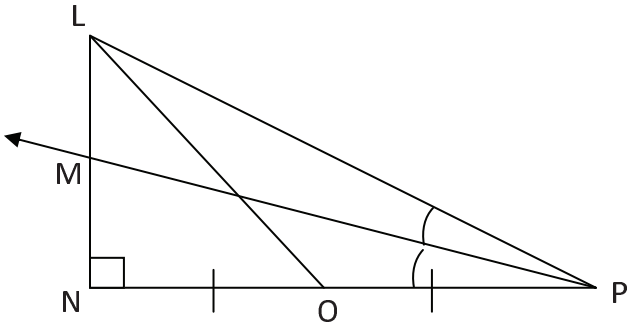
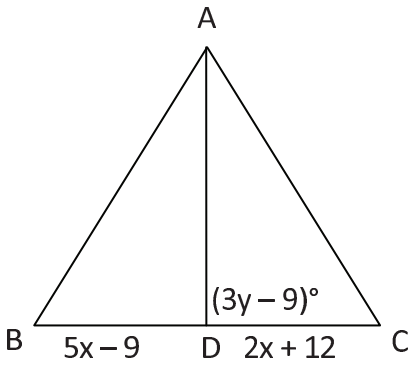
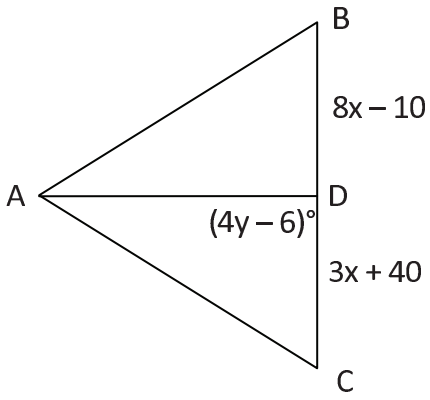
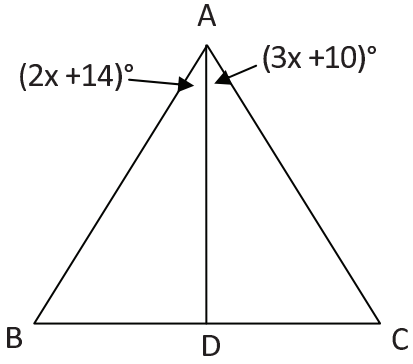


Find the value of *x*, if $\overline{AD}$ is a median of $\overline{BC}$. Find the value of *y*, if $\overline{AD}$ is an altitude of $\overline{BC}$.	
Find the value of *x*, if $\overline{AD}$ is a median of $\overline{BC}$. Find the value of *y*, if $\overline{AD}$ is an altitude of $\overline{BC}$.	
Find the value of *x*, if $\overline{AD}$ is an angle bisector of $\angle BAC$.	

The above notes are from:
http://www.learningcommunity202.org/PEHS/departments/math/Burnier/Geometry/Chapter5_Notes.pdf
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