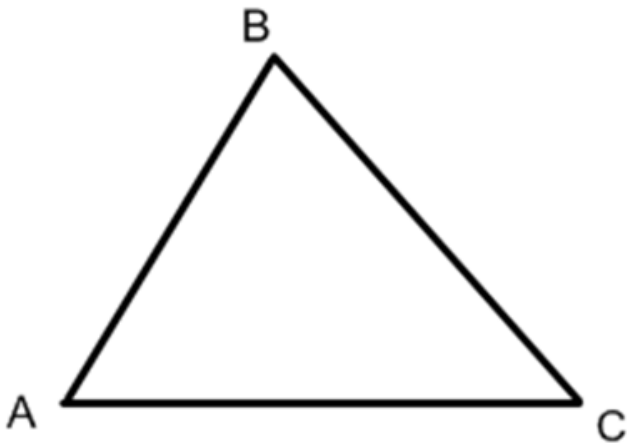
Do Now:

Matching...

1. perpendicular bisector	a. centroid
2. angle bisector	b. orthocenter
3. median	c. circumcenter
4. altitude	d. incenter



a.) Draw an angle bisector for angle A

b.) Draw a perpendicular bisector of side BC

c.) Draw a median from angle C to side AB

d.) Draw an altitude from angle B to side AC

Unit 8 Day 3:
Segments of Triangles

Applying theorems about special segments of triangles (6.2-6.3)

Today's I Can Statements:

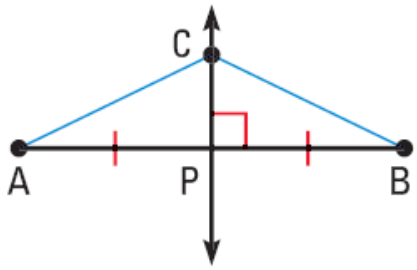
ST-1: I can identify different segments in a triangle.

ST-2: I can use theorems of segments in a triangle to solve.

ST-3: I can use coordinates to prove geometric theorems algebraically.

Perpendicular Bisector Theorem

In a plane, if a point is _____the perpendicular bisector of a segment, ther



_____

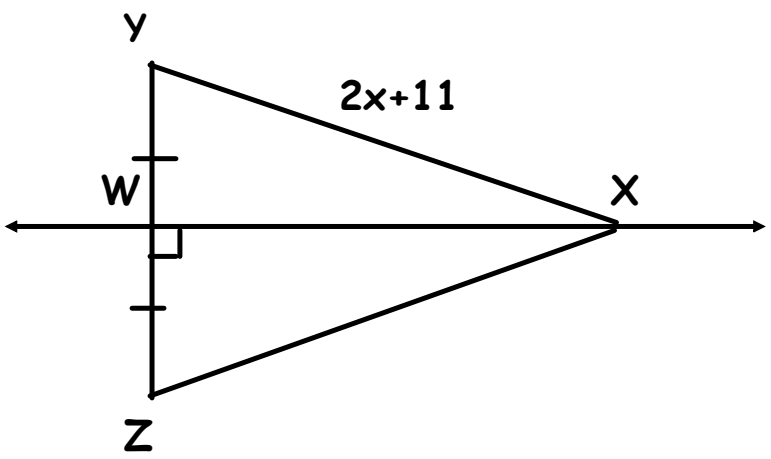
_____

_____

_____.

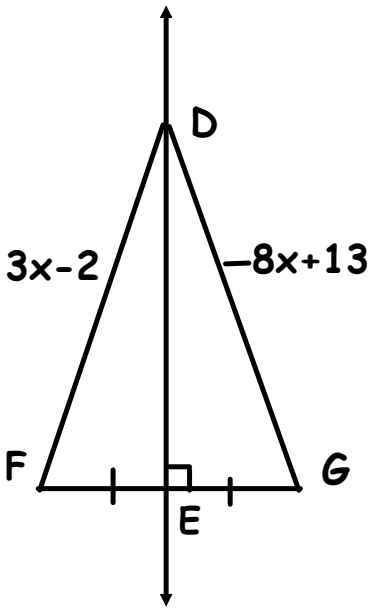
If C is on the perp. bisector of AB, then CA=CB.

In the Diagram, $\overleftrightarrow{WX}$ is the perpendicular bisector of $\overline{YZ}$. What is the length of $\overline{XZ}$ if $x=4$.



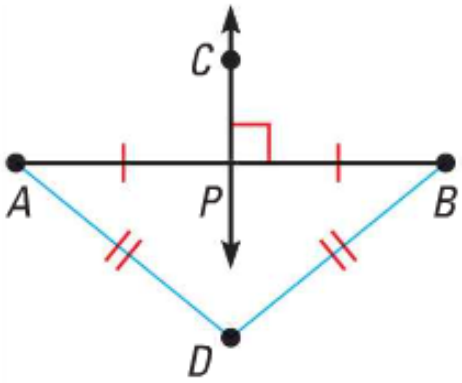
Line $\overleftrightarrow{DE}$ bisects line $\overline{FG}$ to form a 90^0 angle.

Find the lengths of $\overline{DF}$ and $\overline{DG}$.



Converse of the Perpendicular Bisector Theorem

In a plane, if a point is _____ _____then it is on the perpendicular bisector of a segment.

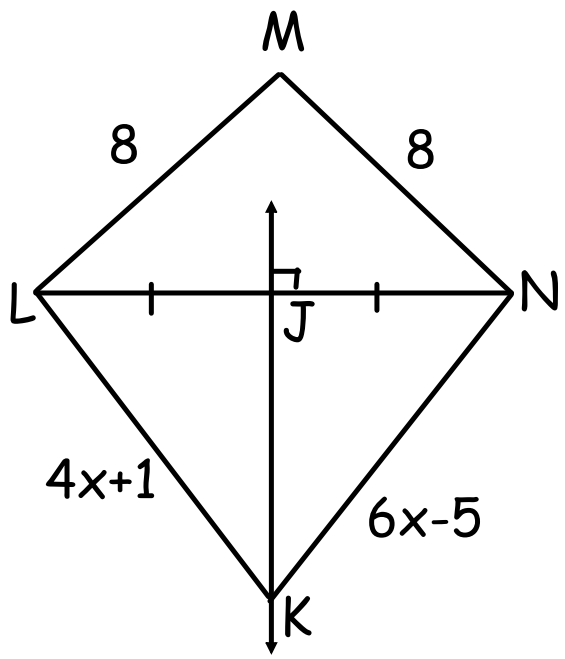


If $DA = DB$, then D lies on the $\perp$ bisector of $\overline{AB}$.

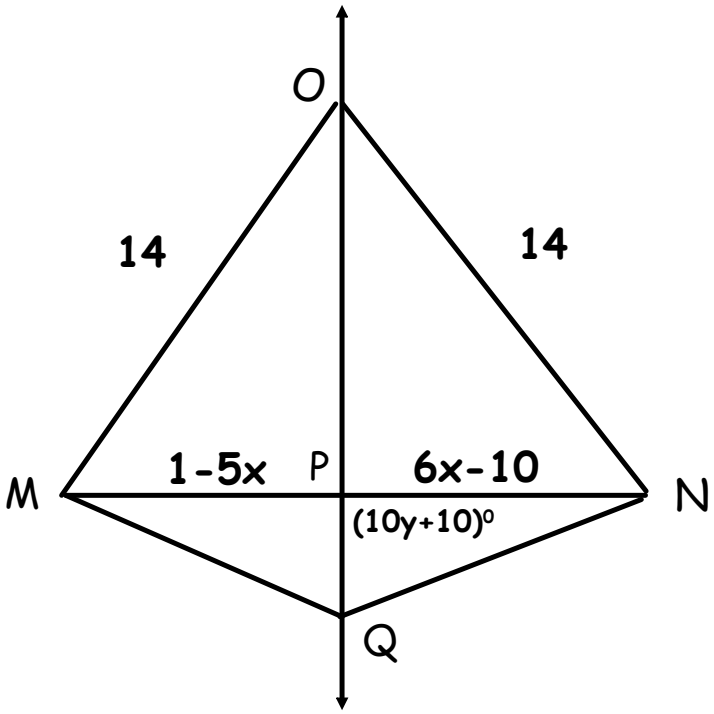
1. What segment lengths can you say are equal? Why?

2. Find NK.

3. Is M located on JK? Why?

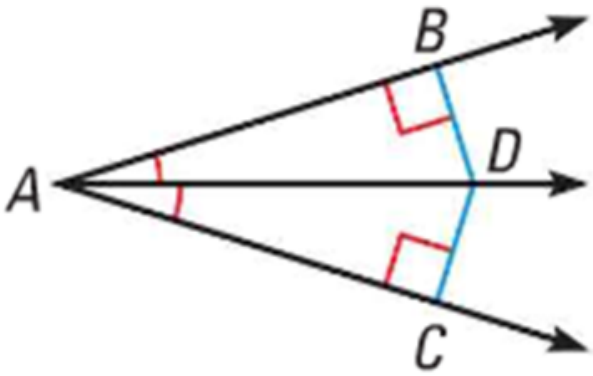


In the Diagram $\overline{MO} = \overline{NO}$. Find the values of x and y.



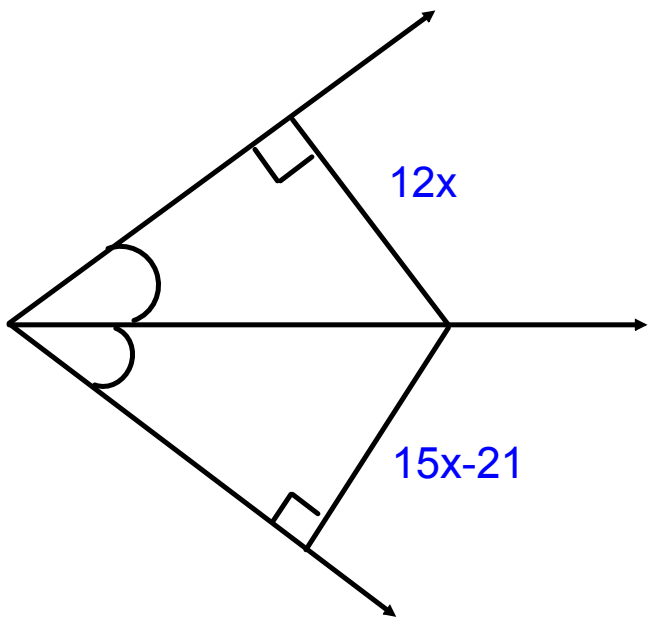
Angle Bisector Theorem

If a point is ___ the bisector of an angle, then it is _____ _____.



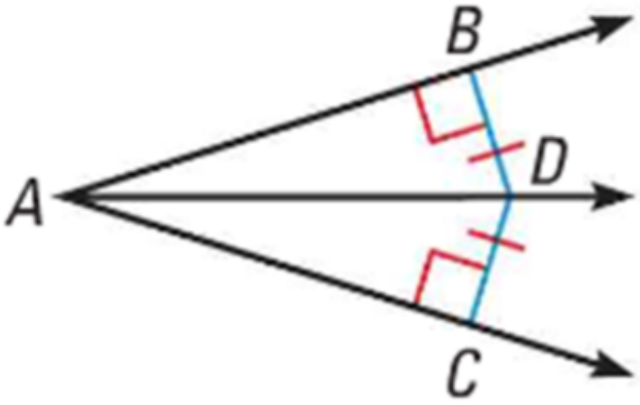
If $\overrightarrow{AD}$ bisects $\angle BAC$ and $\overline{DB} \perp \overrightarrow{AB}$ and $\overline{DC} \perp \overrightarrow{AC}$, then **DB = DC**.

For the Diagram given, find the value of x.



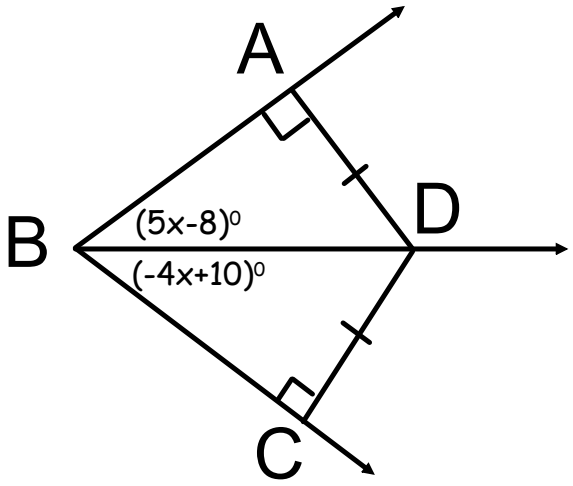
Converse of the Angle Bisector Theorem

If a point is _____ _____and is _____ _____,
then it lies on the bisector of the angle.

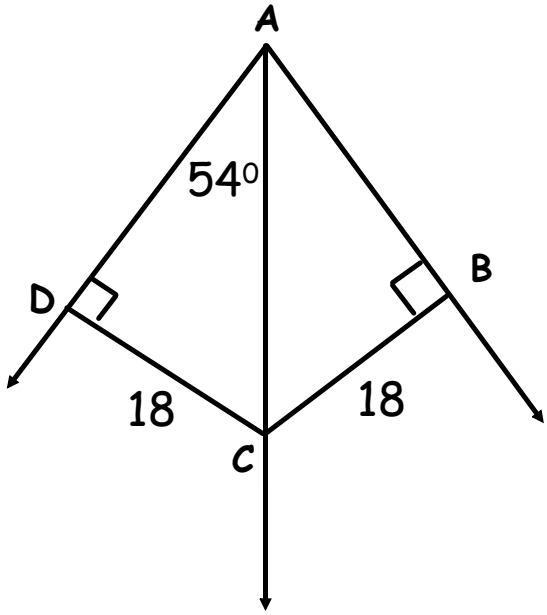


If $\overline{DB} \perp \overrightarrow{AB}$ and $\overline{DC} \perp \overrightarrow{AC}$ and **DB = DC**, then $\overrightarrow{AD}$ bisects $\angle BAC$.

Find the value of x.



Find the measure of $\angle BAD$



Tonight's Assignment:
WS 6.1-6.3 Homework

Remember:
Segments of Triangles Quiz will be
Wednesday 1/29 Thursday 1/30

Today's I Can Statements:

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