

2014-10-03

Chapter 3.2

Constructions

Today we will learn to construct
perpendicular bisectors of line segments.

Please take out your compass and straight edge!

Get out Textbooks and Comp Books!

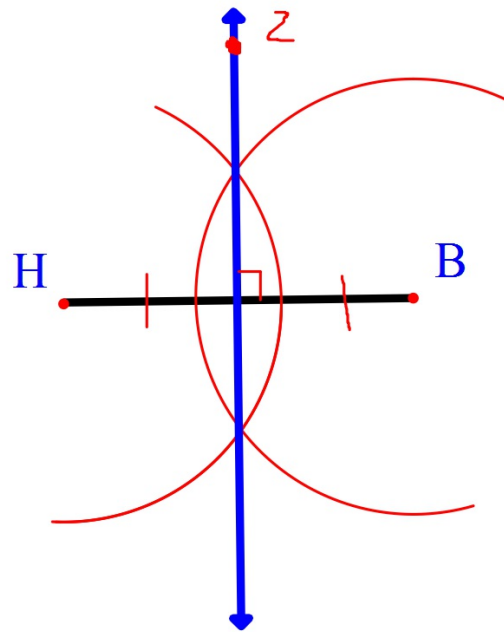


H  B

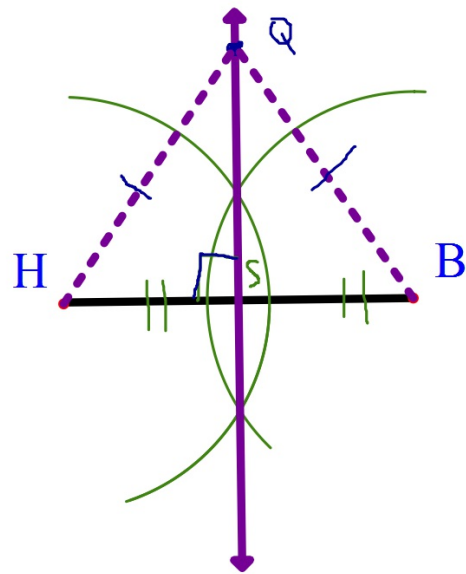
H  B

HZ

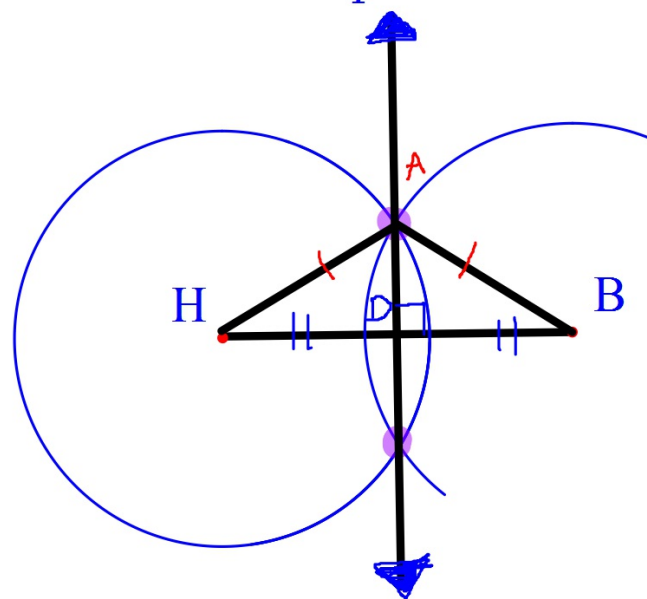
ZB



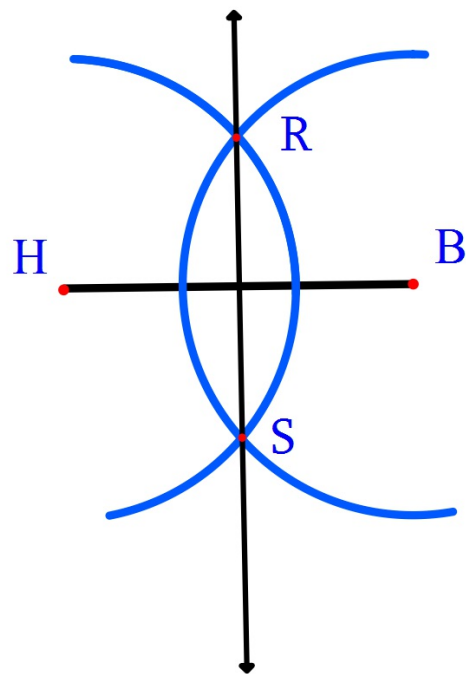
Construct a Perpendicular Bisector:



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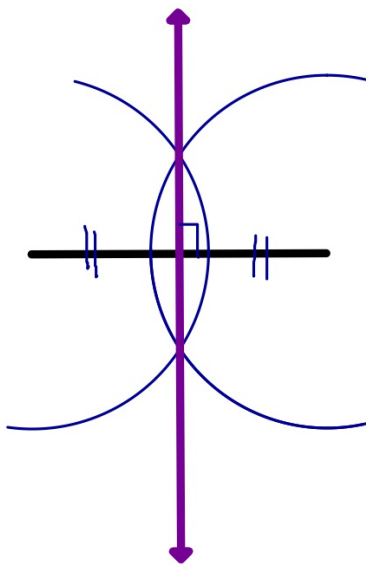


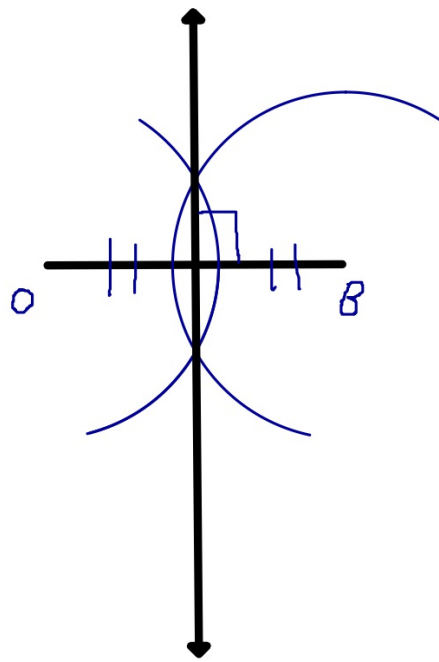
Construct a Perpendicular Bisector:

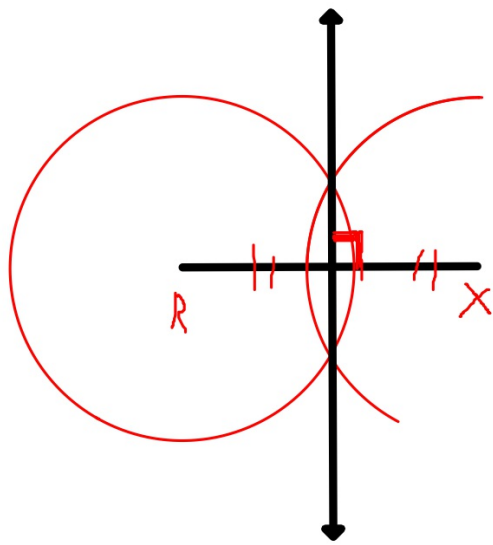


Label a point on the perpendicular bisector.

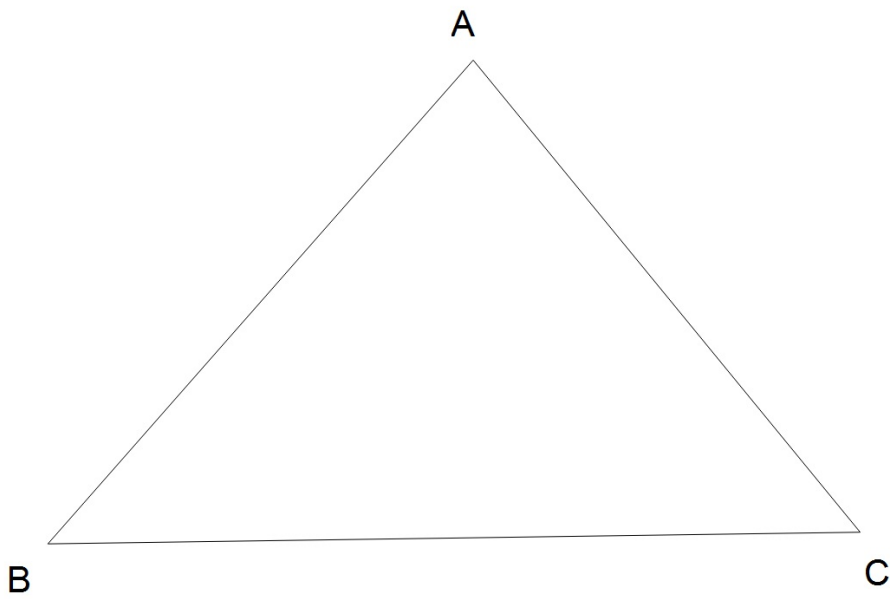
Measure the distance (with your compass) between the point and the two endpoints of the segment. What do you notice?



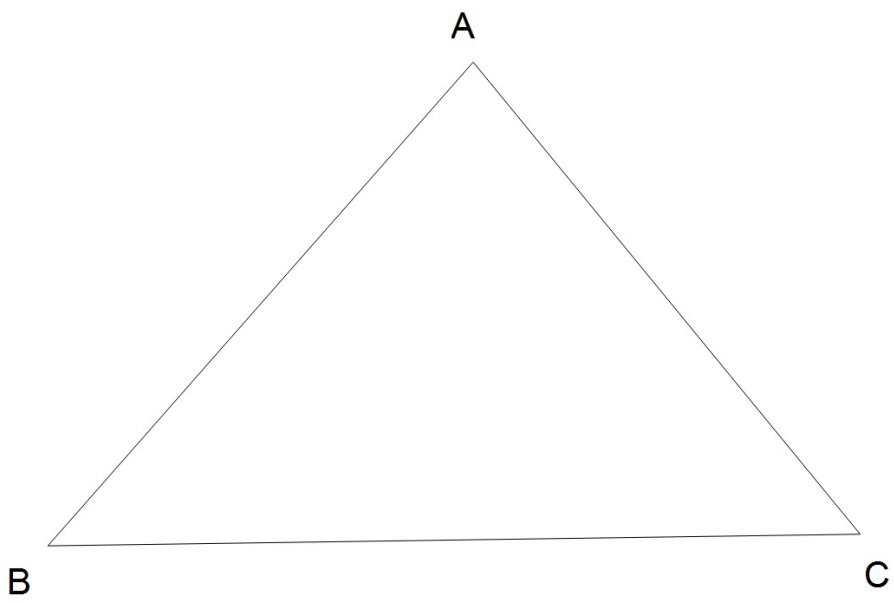




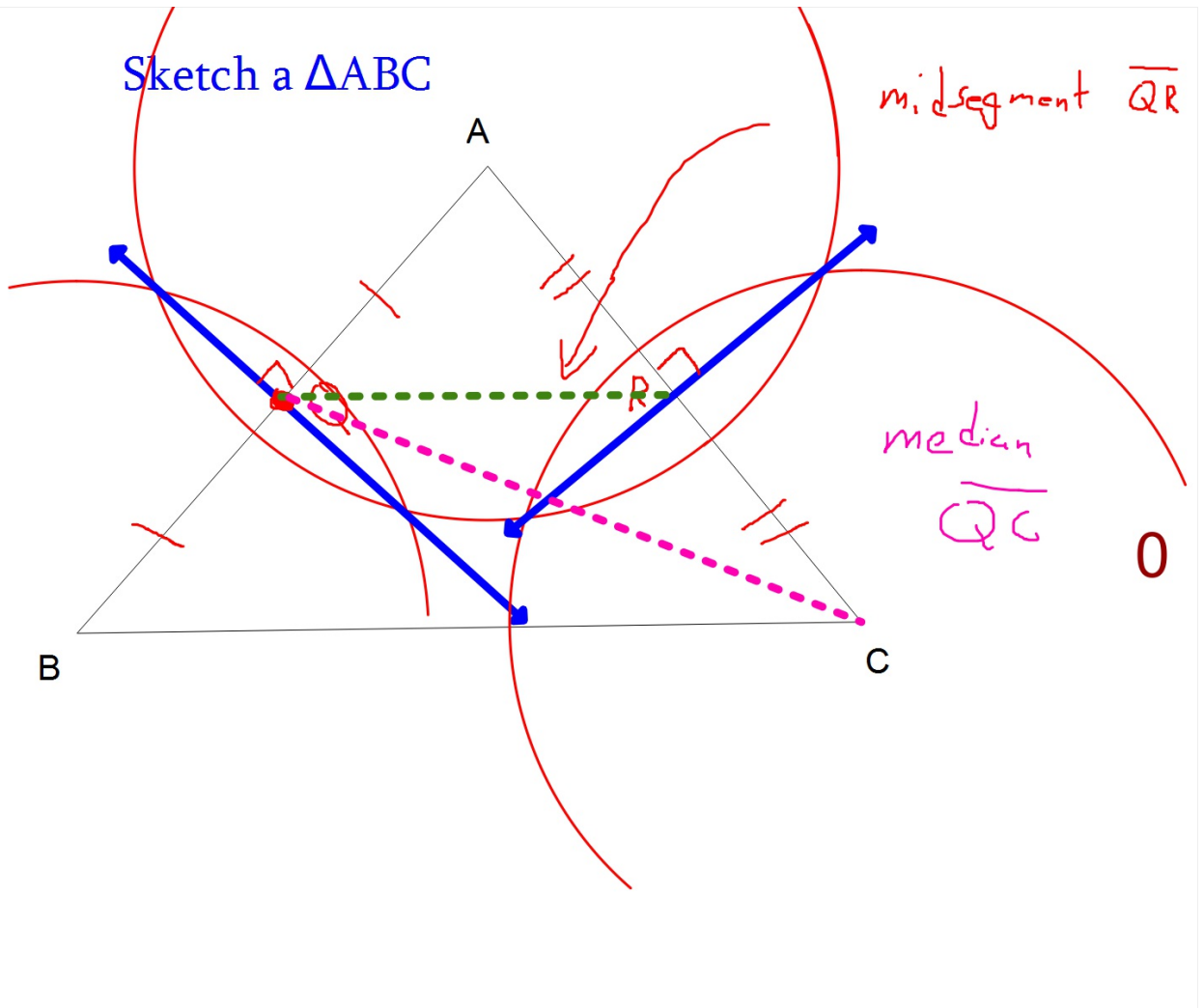
Sketch a $\triangle ABC$



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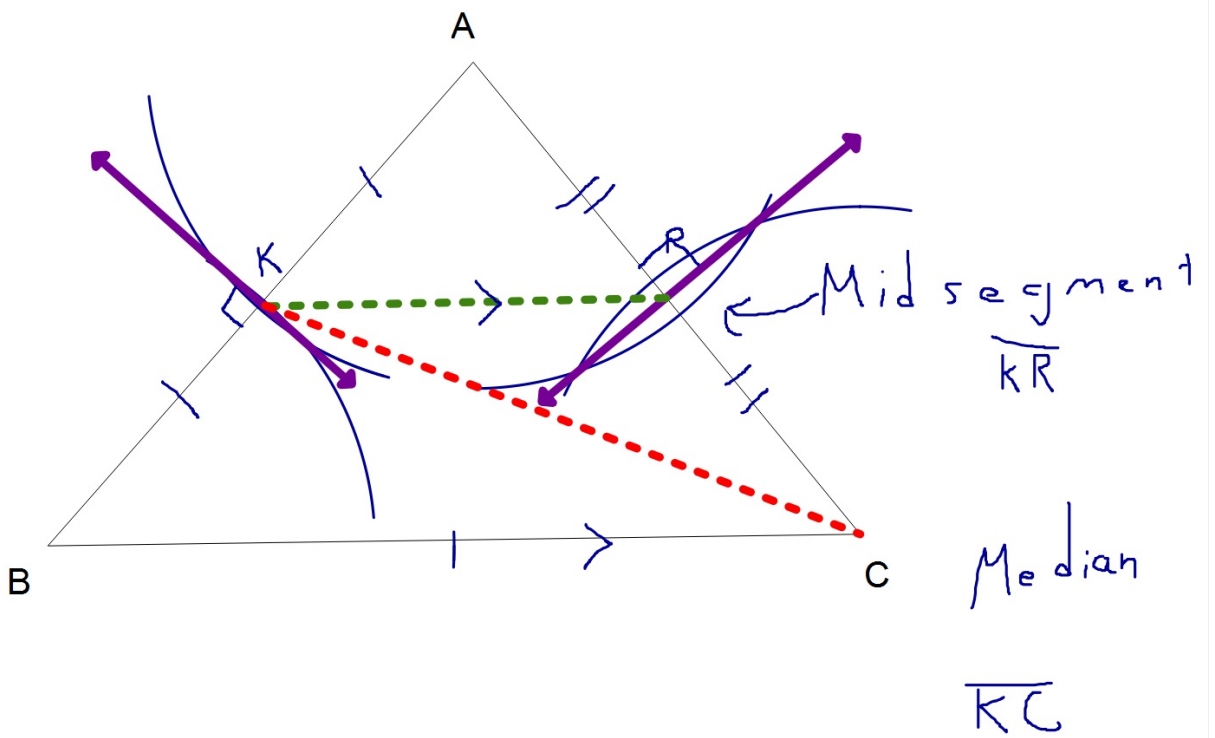
midsegment \overline{QR}

median \overline{QC}

0

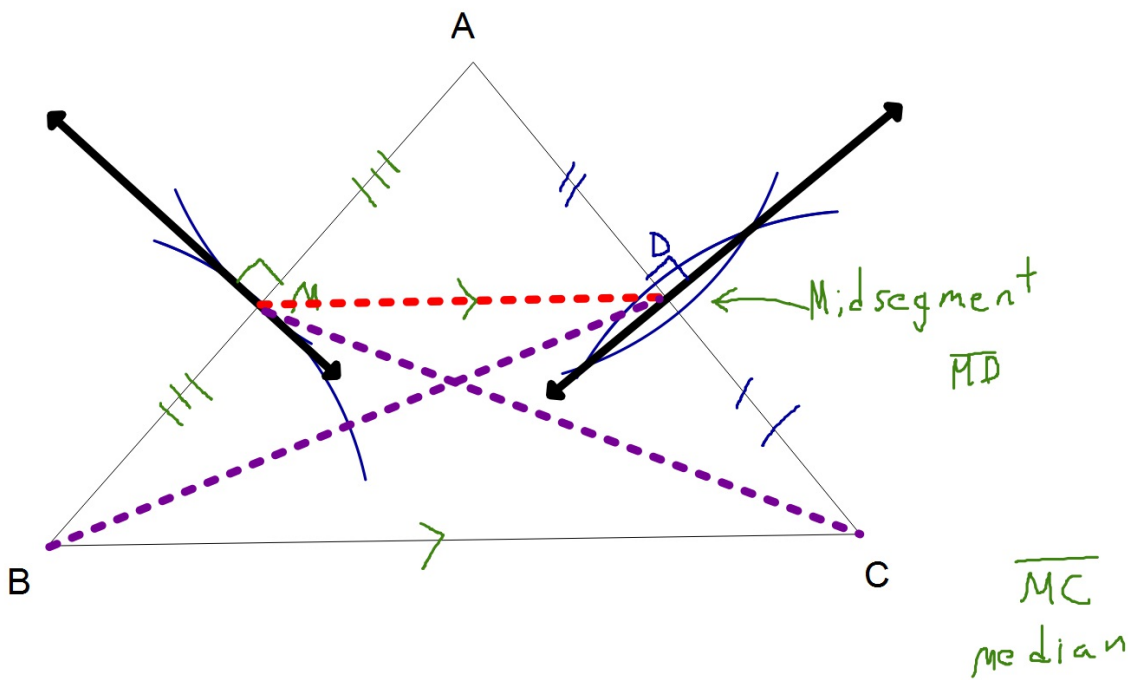
Sketch a $\triangle ABC$

(Use a straight edge!)



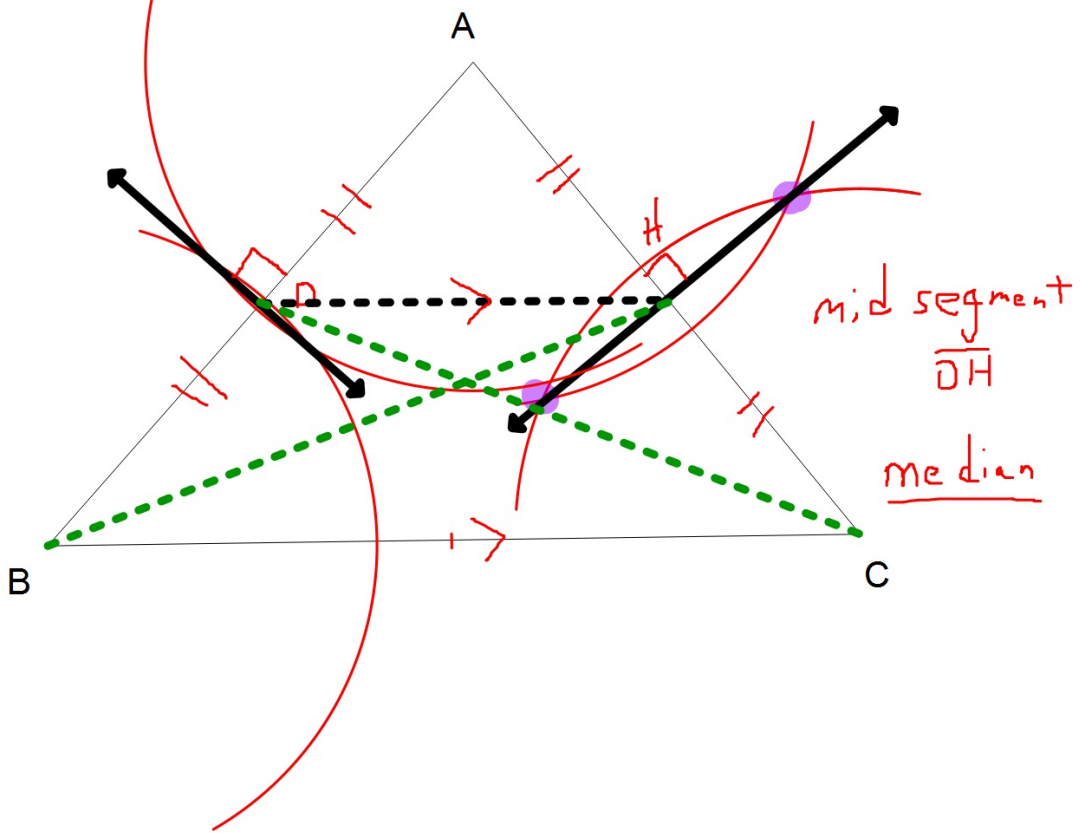
Sketch a $\triangle ABC$

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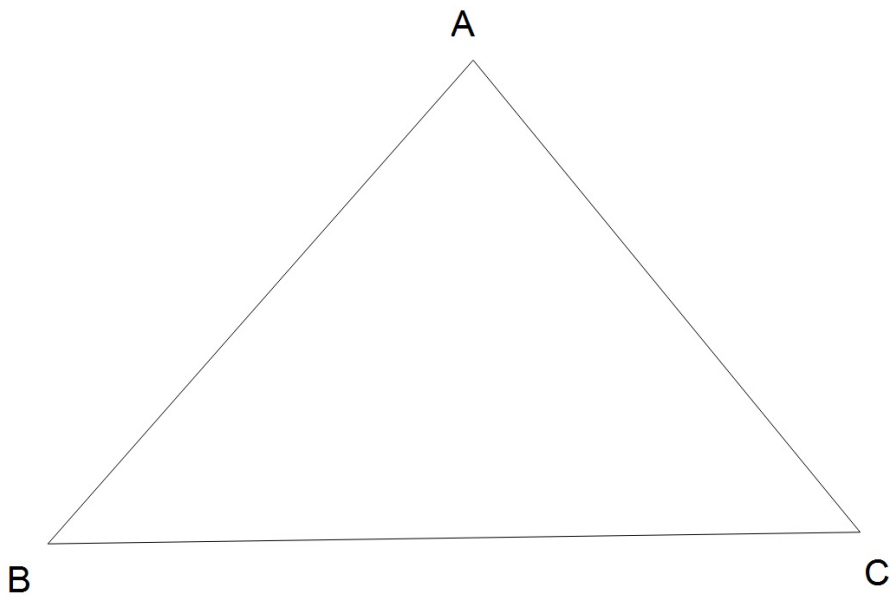
Sketch a $\triangle ABC$

(Use a straight edge!)



Sketch a $\triangle ABC$

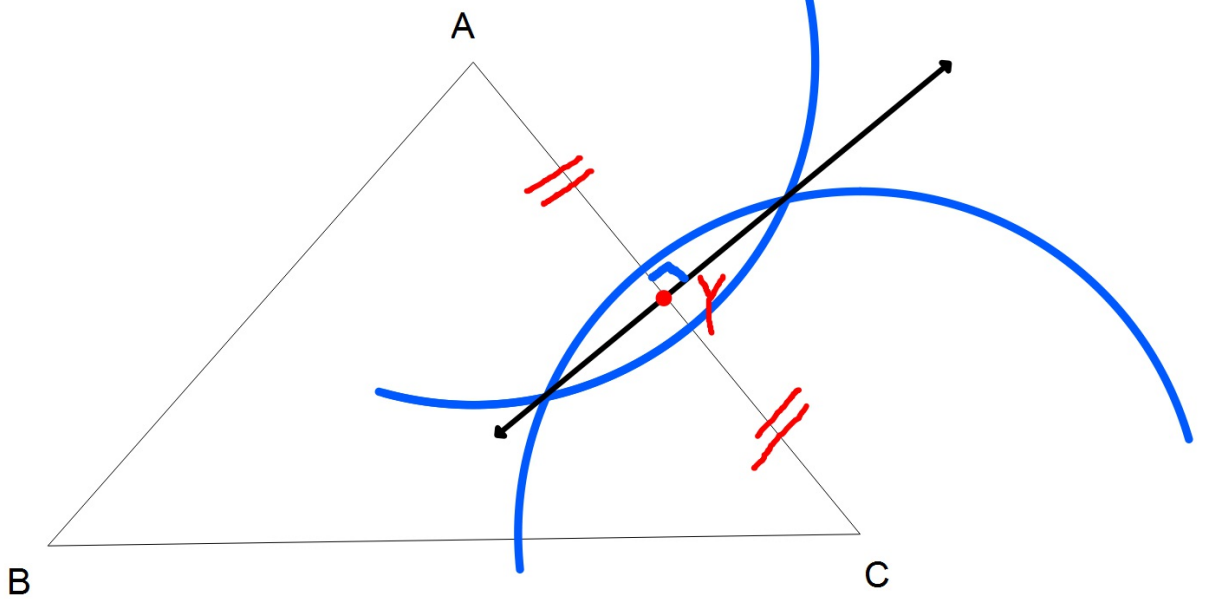
(Use a straight edge!)



Construct the **midpoints** of \overline{AB} and \overline{AC}

Sketch a $\triangle ABC$

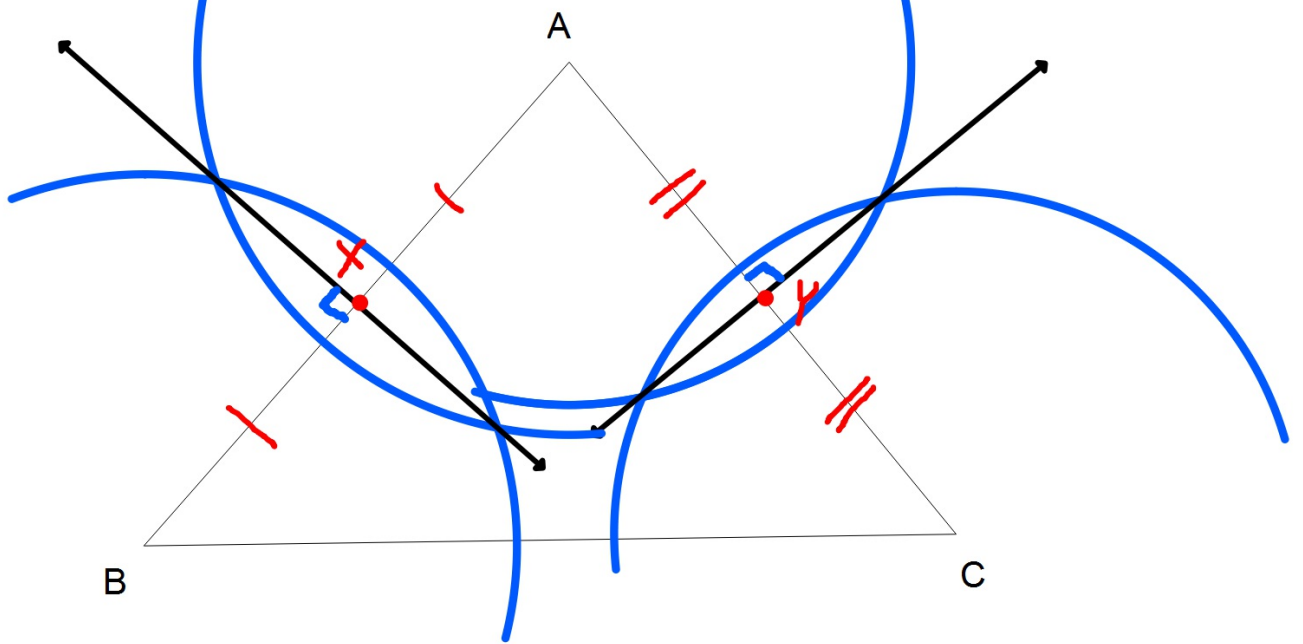
(Use a straight edge!)



Construct the **midpoints** of \overline{AB} and \overline{AC}

Sketch a $\triangle ABC$

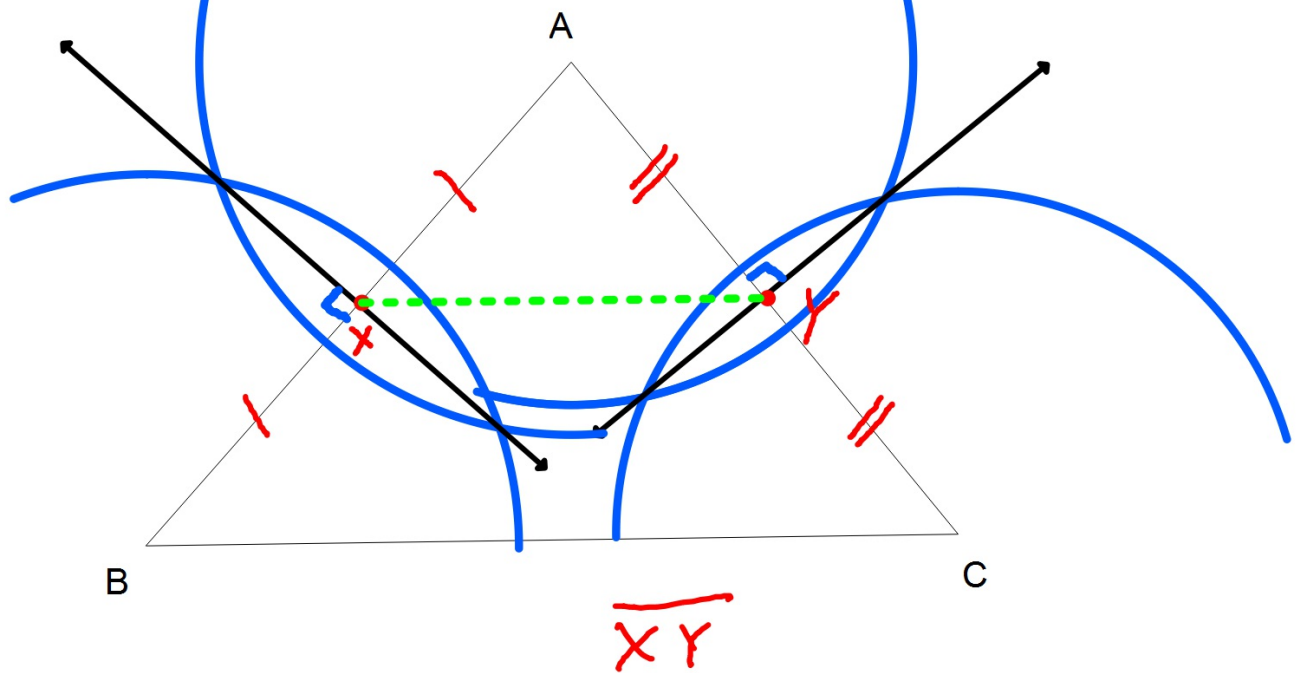
(Use a straight edge!)



Construct the **midpoints** of \overline{AB} and \overline{AC}

Sketch a $\triangle ABC$

(Use a straight edge!)

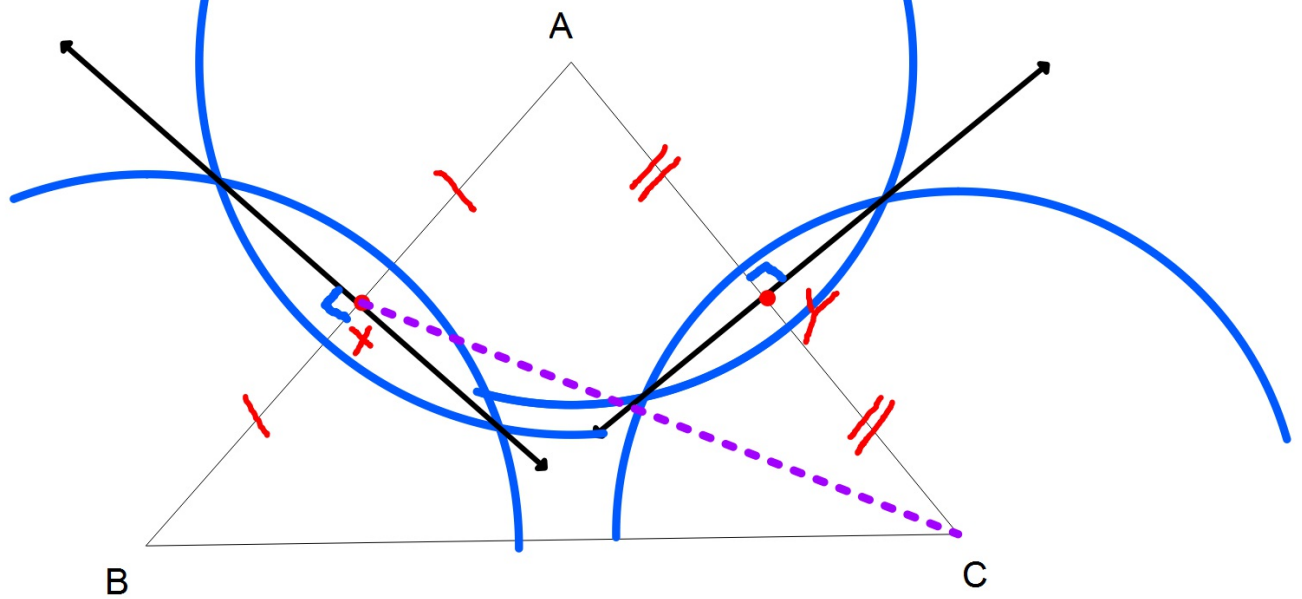


The line segment that connects the **midpoints** of AB and AC

Is a **MID-SEGMENT!**

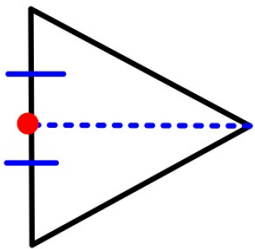
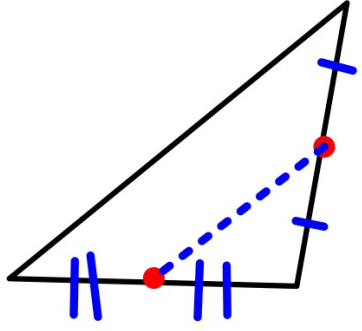
Sketch a $\triangle ABC$

(Use a straight edge!)



The line segment that connects a **midpoint** to the opposite **vertex**

Is a **MEDIAN!**

| Term | Definition | Picture |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Median | line segment connecting a vertex to the midpoint of its opposite side |  |
| Midsegment | <p>line segment connecting a midpoint of one side to the midpoint of another side</p> <p>HW: p. 151 #1, 2, 5, 7-10 (use a compass and straight-edge only!)</p> |  |

HW:

p. 151 #1, 2, 5, 7-10

(use a **compass and
straight-edge only!)**

