

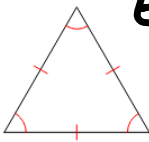
## Bellwork: 6&9Sep

1. What do the tick markings mean as in:



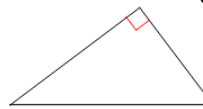
2. Classify the following triangles:

1)



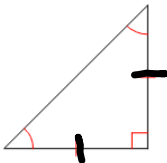
Equilateral  
&  
Acute

2)



Scalene  
&  
Right

3)

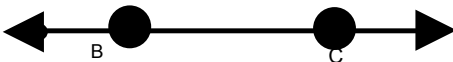
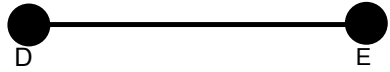
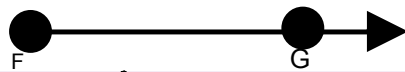
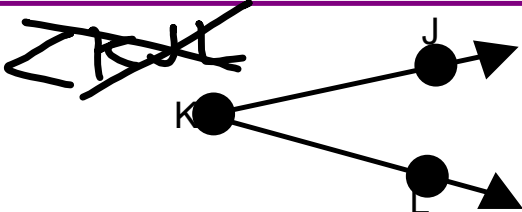
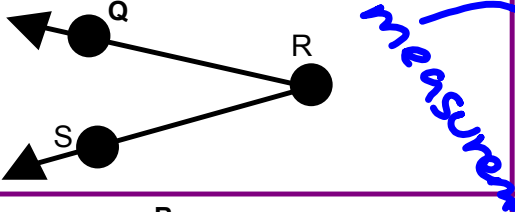
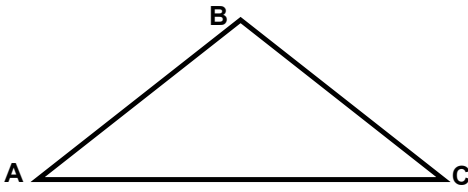




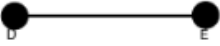

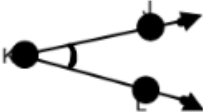
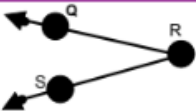
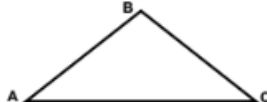

Isosceles  
&  
Right

4)

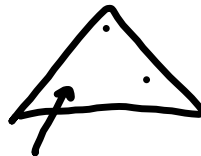


Isosceles  
&  
OBTUSE

Vocabulary	Drawing	Notation
Line:		$\overleftrightarrow{BC}$
Line segment:		$\overline{DE}$
Ray:		$\overrightarrow{FG}$
Angle:		$\angle K$ $\angle JKL$ $\angle LKJ$
Measure of Angle:		$m\angle QRS$ $m\angle SRQ$ $m\angle R$
Triangle:		$\triangle ABC$
Quadrilateral:		$\square WXYZ$

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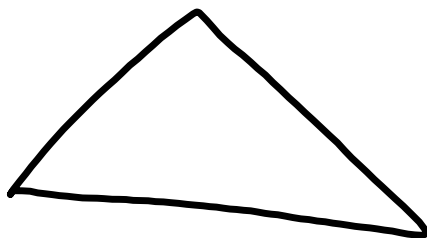
1-4

~~2-4~~ Properties of Triangles

I can find missing angle measures in a triangle.

I can solve problems using properties of triangles (isosceles, midsegments, angle sum).

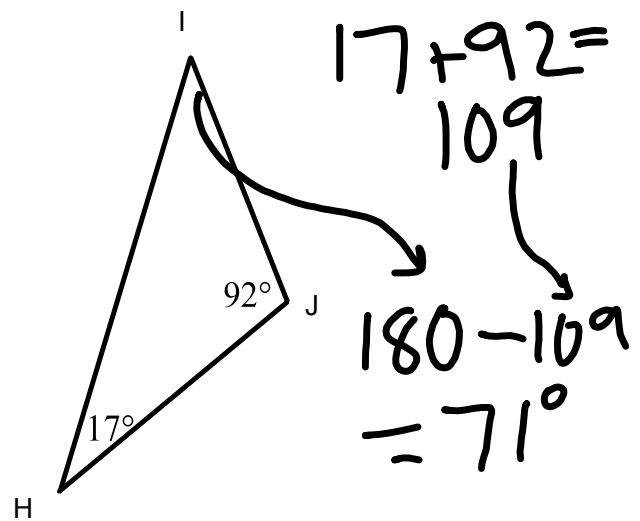
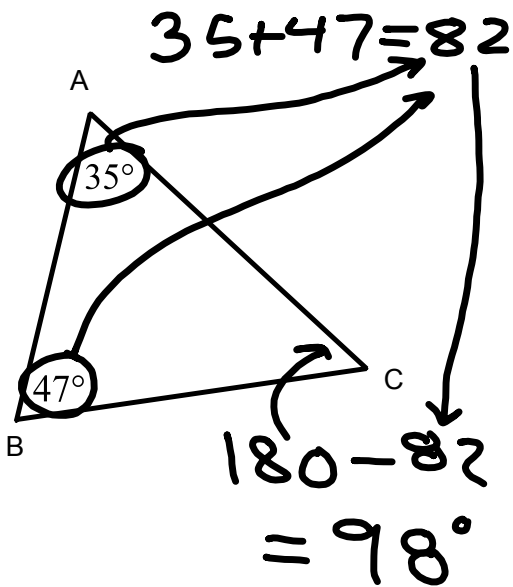
## The Triangle Sum Theorem





The Triangle Sum Theorem:  
The sum of the measures of the interior angles of a triangle is  $180^\circ$ .

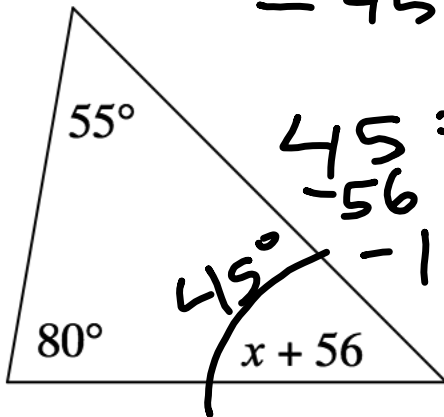
Find the missing angle measures:



Find the value of  $x$ . Justify your answer (in words).

$$55 + 80 = 135$$

$$180 - 135 = 45$$



$$45 = x + 56$$

$$\begin{array}{r} 45 \\ - 56 \\ \hline -11 = x \end{array}$$

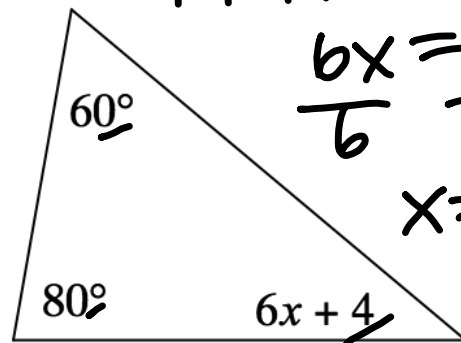
$$60 + 80 + 6x + 4 = 180$$

$$144 + 6x = 180$$

$$6x = 36$$

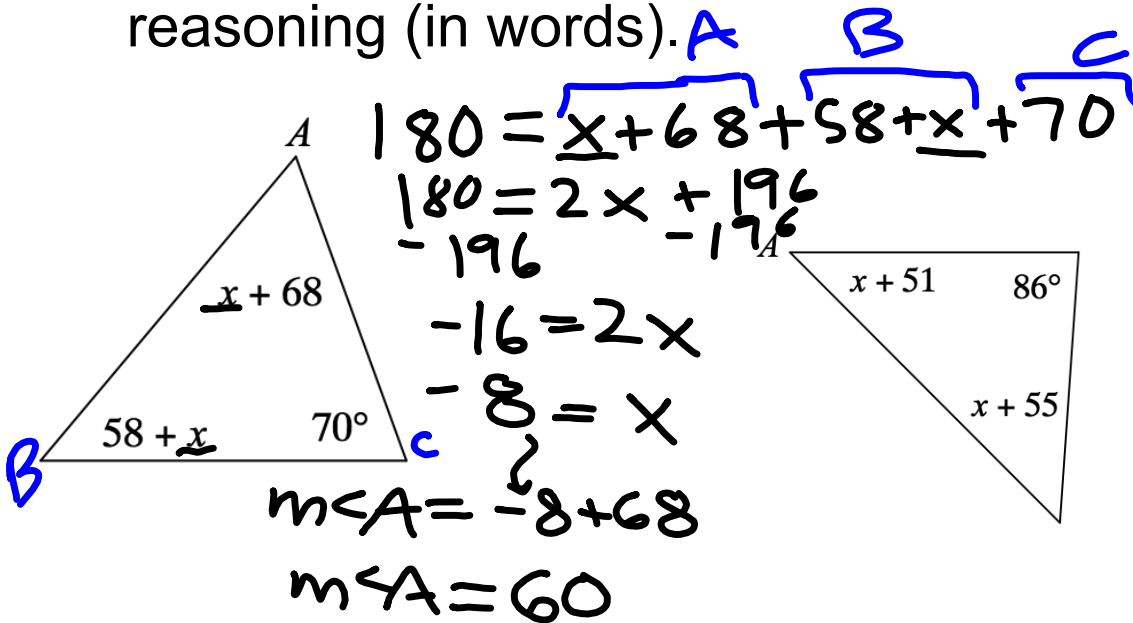
$$\frac{6x}{6} = \frac{36}{6}$$

$$x = 6$$





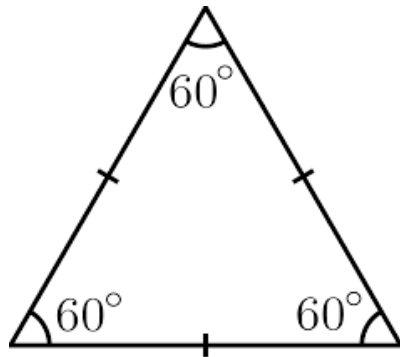
Find the measure of angle A. Explain your reasoning (in words).



## Equilateral Triangle:

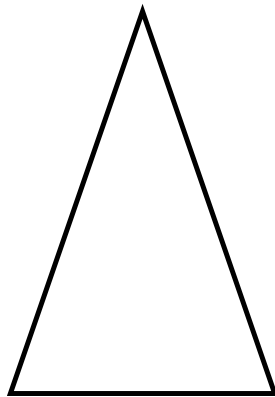
All angles in the triangle are congruent.

All sides in the triangle are congruent.



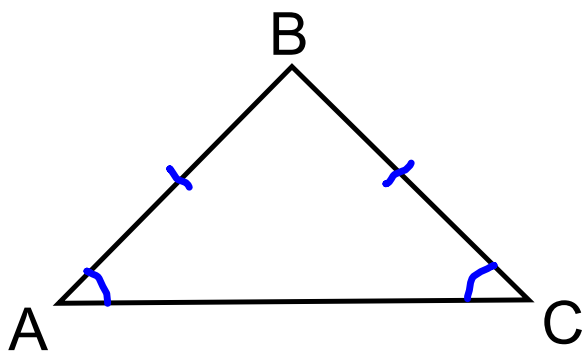
## Isosceles Triangle:

At least 2 sides (called the *legs*) of the triangles are congruent.



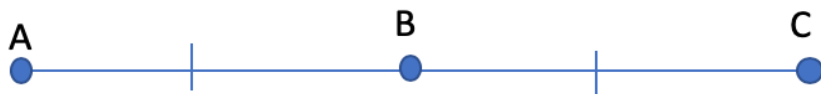
Base Angles

Find the measure of all angles in triangle ABC if angle B is  $80^\circ$ .

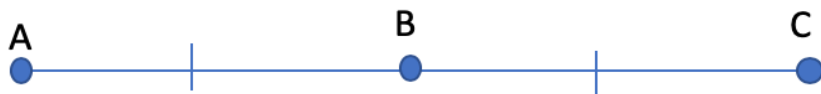


What is a midsegment?

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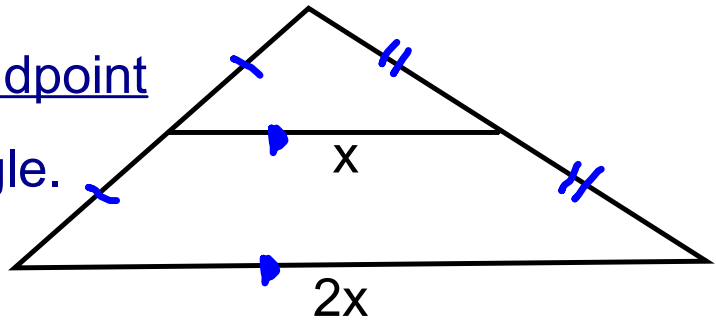
What is a midsegment?



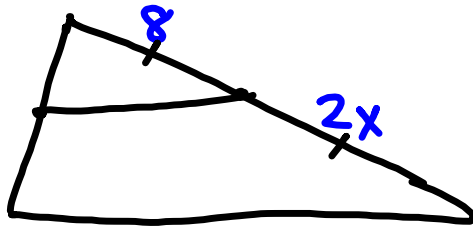
Point B is the midpoint

Midsegment - a segment that connects the midpoint of 2 sides of a triangle.

It is  $\parallel$  to the third side of the triangle and half as long.



Ex:



$$\frac{8}{2} = \frac{2x}{2}$$

$$x = 4$$



Solve for  $x$  and justify your answer (with words).

