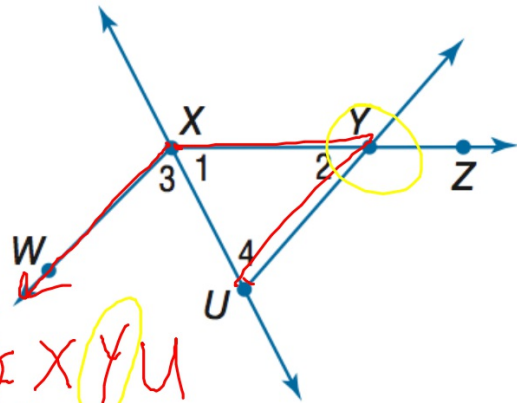


Geometry BELL WORK

** you do NOT have to copy the drawing **

Use the figure at the right.

1. Name the vertex of $\angle 4$. *U*
2. Name the sides of $\angle 3$. *\overrightarrow{XW} \overrightarrow{XU}*
3. What is another name for $\angle 2$? *$\angle XYU$*
4. What is another name for $\angle UXY$? *$\angle 1$ $\angle XYU$*



1-4 Angle Measure

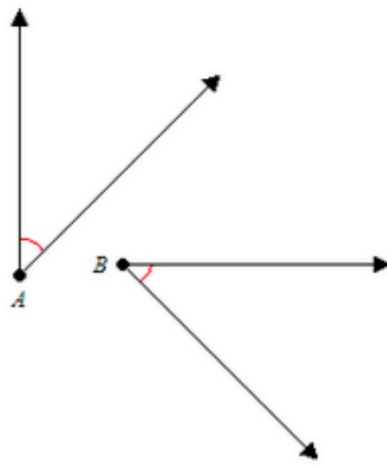
We have:
Measured and classified angles.

Today we will:
Identify and use congruent angles and angle bisectors.

G-CO: Experiment with transformations in the plane.

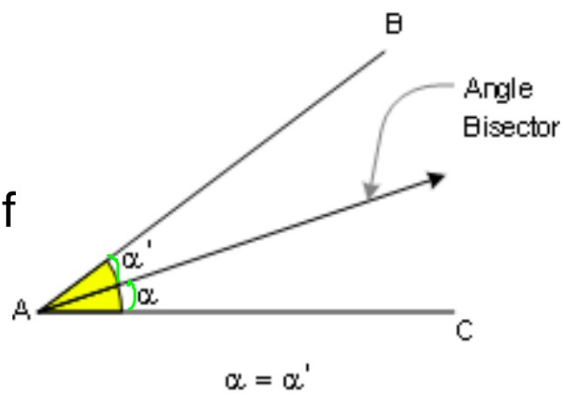
congruent angles

have the same measure



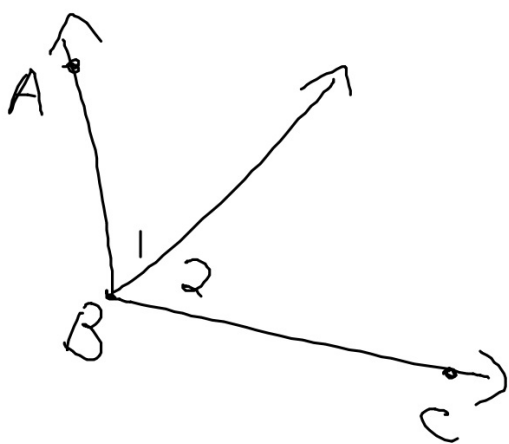
angle bisector

cuts the angle in half



angle addition

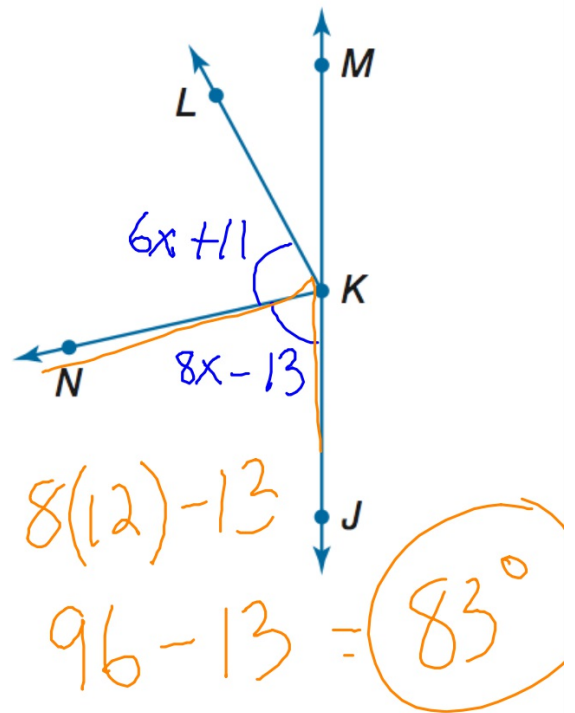
when angles share a side, the sum of the measures of the smaller angles is equal to the measure of the largest angle.



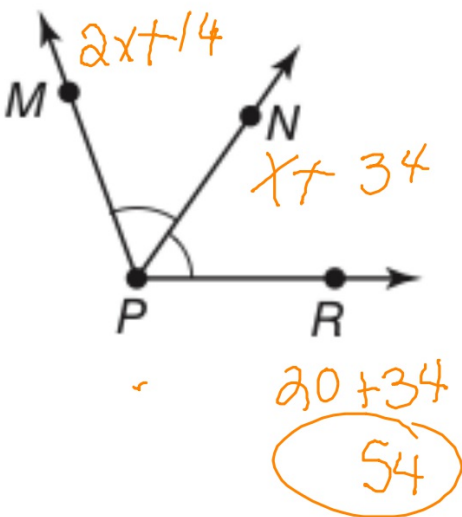
$$m\angle ABC = m\angle 1 + m\angle 2$$

ALGEBRA In the figure, \overrightarrow{KJ} and \overrightarrow{KM} are opposite rays, 180° and \overrightarrow{KN} bisects $\angle JKL$. If $m\angle JKN = 8x - 13$ and $m\angle NKL = 6x + 11$, find $m\angle JKN$.

$$\begin{array}{r}
 6x + 11 = 8x - 13 \\
 -6x \qquad -6x \\
 \hline
 11 = 2x - 13 \\
 +13 \qquad +13 \\
 \hline
 24 = 2x \\
 12 = x
 \end{array}$$



If $m\angle MPN = 2x + 14$ and
 $m\angle NPR = x + 34$, find x and find $m\angle NPR$.



$$\begin{array}{r} 2x + 14 = x + 34 \\ -x \quad -x \\ \hline x + 14 = 34 \\ -14 \quad -14 \\ \hline x = 20 \end{array}$$

