

1.4 Angle Measure

Homework: Sec. 1.4 # 13-43 odd #44

OBJ: To classify angles and rays

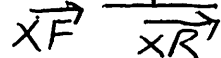
To identify and use congruent angles and the bisector of an angle. To use the Angle Addition Postulate

Vocabulary:

Ray- has one endpoint and extends infinitely in one direction



Opposite rays- Share same endpoint but go in opposite directions



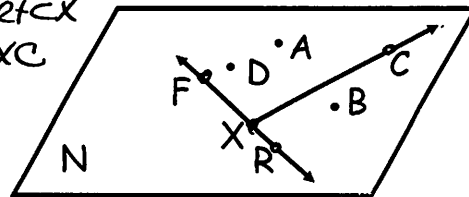
Angle- formed by 2 non-collinear rays with a common endpoint



Vertex- common endpoint of two non-collinear rays

X IS THE VERTEX of both $\angle FXC$

and $\angle CXR$



points D: A OR ON INTERIOR of $\angle FXC$

points D: A OR ON EXTERIOR of $\angle FXC$

Key Concept Classify Angles		
right angle	acute angle	obtuse angle
<p>This symbol means a 90° angle.</p> <p>$m\angle A = 90$</p>	<p>$m\angle B < 90$</p>	<p>$180 > m\angle C > 90$</p>

A straight angle has 180 degrees.

Congruent angles have the same measure

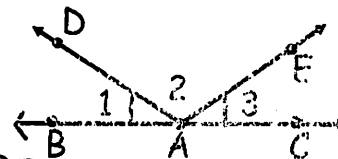
Name the congruent angles: $\angle 1 \cong \angle 3$

Name a pair of opposite rays \overrightarrow{AB} \overrightarrow{AC}

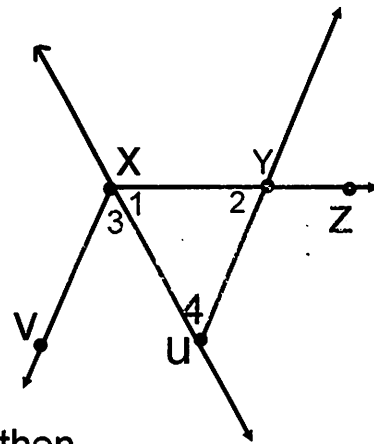
What is another name for $\angle 1$ $\angle BAD$

What 2 angles make up $\angle BAE$ $\angle BAD$; $\angle DAE$

Find $m\angle BAC$ 180

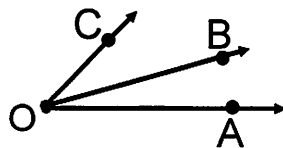


1. Name vertex of $\angle 4$ U
2. Name sides of $\angle 3$ \vec{XV}, \vec{XU}
3. What is another name for $\angle 2$ $\angle XYZ$
4. What is another name for $\angle UXY$ $\angle 1$



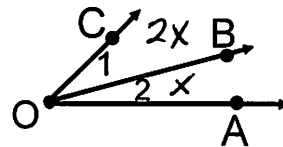
* Angle addition postulate:

If Point B lies on the interior of $\angle AOC$ then,
 $m\angle AOB + m\angle BOC = m\angle AOC$



If $m\angle 1 = 2x$ and $m\angle 2 = x$, and
 the $m\angle COA = 45$ find both angles.

$$m\angle COB + m\angle BOA = m\angle COA$$



* Angle bisectors divide an angle into two congruent parts

\overline{KN} bisects $\angle LKM$

If $m\angle NKL = 7x - 9$ and $m\angle JKM = x + 3$, find $m\angle JKN$

$$m\angle NKL + m\angle NKM + m\angle JKM = \angle JKL$$

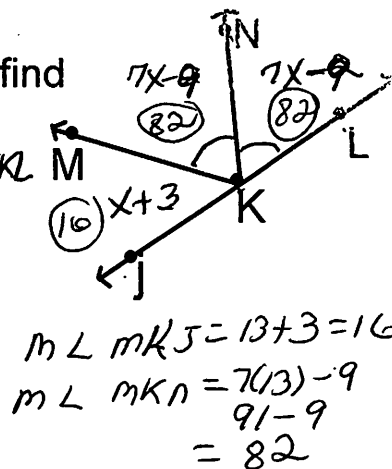
$$7x - 9 + 7x - 9 + x + 3 = 180$$

$$14x - 18 + x + 3 = 180$$

$$15x - 15 = 180$$

$$15x = 195$$

$$x = 13$$



$$m\angle JKN = 16$$

$$\frac{82}{98^\circ}$$

$$m\angle MKJ = 13 + 3 = 16$$

$$m\angle MKN = 7(13) - 9 = 91 - 9 = 82$$