

Take a Bell Work sheet from the front chair. This is where you will complete your daily bell work. It will be collected every 2 weeks.

## Geometry BELL WORK

Find the coordinates of the missing endpoint if  $P$  is the midpoint of  $\overline{NQ}$ .

1)  $N(2, 0)$ ,  $P(5, 2)$   $Q(x_2, y_2)$

$x_1, y_1$

$Q(8, 4)$

$2 \left( \frac{2 + x_2}{2} \right) = (5) 2$

$2 + x_2 = 10$

$x_2 = 8$

$2 \left( \frac{0 + y_2}{2} \right) = (2) 2$

$0 + y_2 = 4$

2)  $N(5, 4)$ ,  $P(6, 3)$

Find the coordinates of the missing endpoint if  $P$  is the midpoint of  $\overline{NQ}$ .

$$2) \quad N(5, 4), P(6, 3) \quad Q(x_2, y_2)$$

$x_1, y_1$                        $M$

$$2\left(\frac{5+x_2}{2}\right) = (6) \quad 2\left(\frac{4+y_2}{2}\right) = (3)$$

$$\begin{array}{r} 5+x_2 = 12 \\ -5 \quad -5 \\ \hline \end{array}$$

$$x_2 = 7$$

$$\begin{array}{r} 4+y_2 = 6 \\ -4 \quad -4 \\ \hline \end{array}$$

$$y_2 = 2$$

$$Q(7, 2)$$

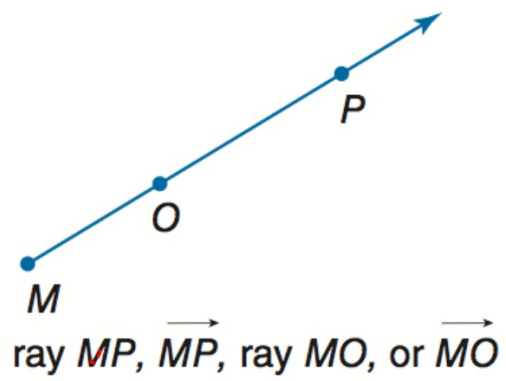
# 1-4 Angle Measure

We have:  
Measured line segments

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

G-CO: Experiment with transformations in the plane.

A **ray** is a part of a line.



The ray shown cannot be named as  $\overrightarrow{OM}$  because  
O is not the endpoint of the ray.

## opposite rays

are rays that start at the same point and go in opposite directions.

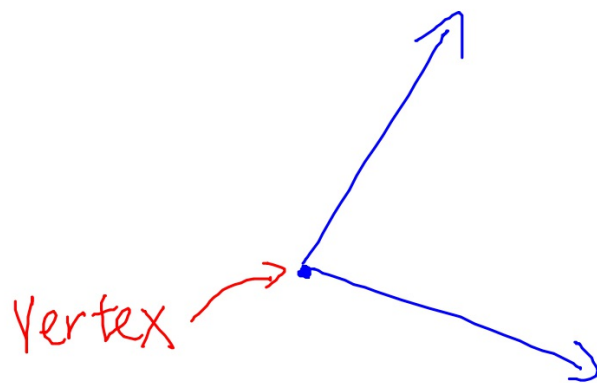
*form a line*



$\overrightarrow{JH}$  and  $\overrightarrow{JK}$  are opposite rays.

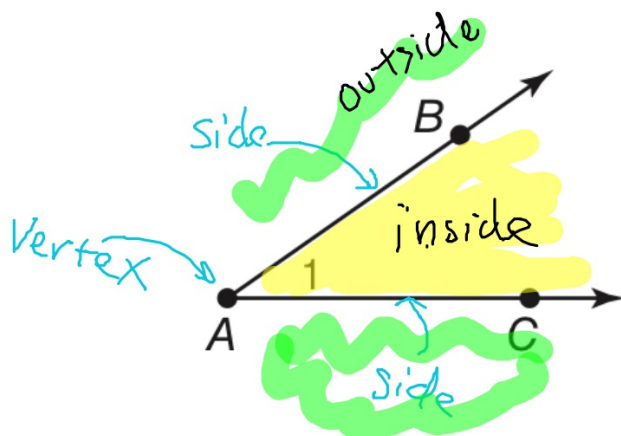
Since both rays share a common endpoint,  
opposite rays are collinear

An **angle** is formed by two *noncollinear* rays that have a common endpoint.



Using the straight side of your protractor, draw an angle like the one shown.

Label the **sides** and the **vertex** of the angle.



Shade the **inside** and the **outside** of the angle



Naming angles : the vertex is the middle letter

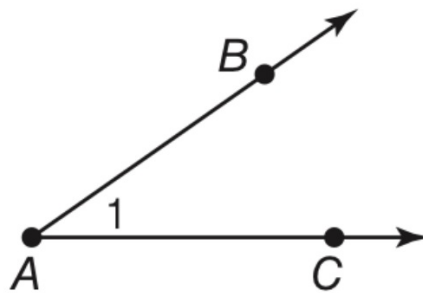
This is angle BAC.

angle CAB

$\angle BAC$

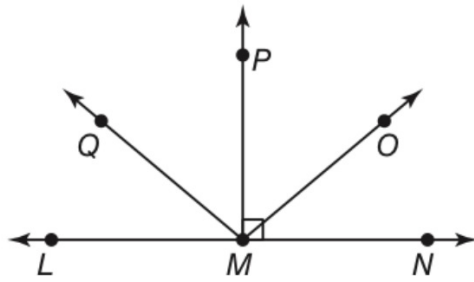
~~$\angle BAC$~~

$\angle 1$       ~~$\angle 1$~~  angle 1





Naming  
angles



## Classifying Angles

**right angle** - exactly ninety degrees



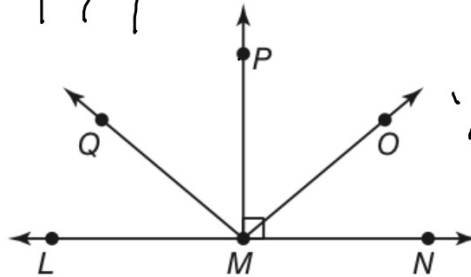
**acute angle** - smaller than a right angle

$1^\circ$  to  $89^\circ$

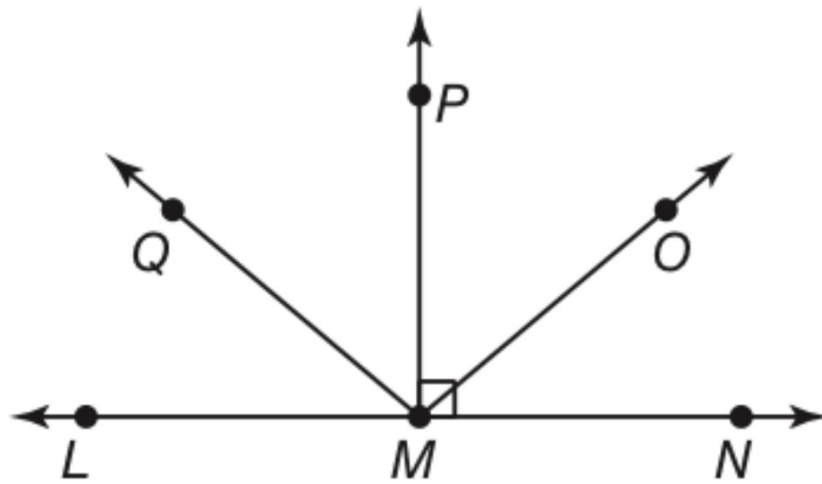


**obtuse angle** - larger than a right angle

$91^\circ$  to  $179^\circ$



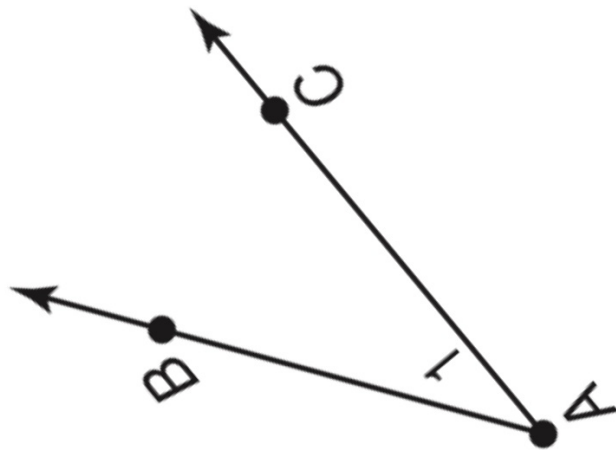
Classify each angle as *right*, *acute*, or *obtuse*.

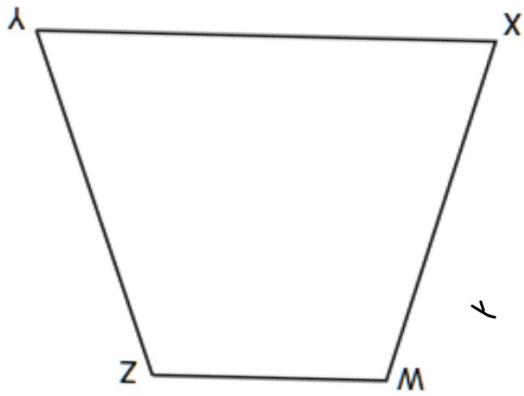


13.  $\angle NMP$

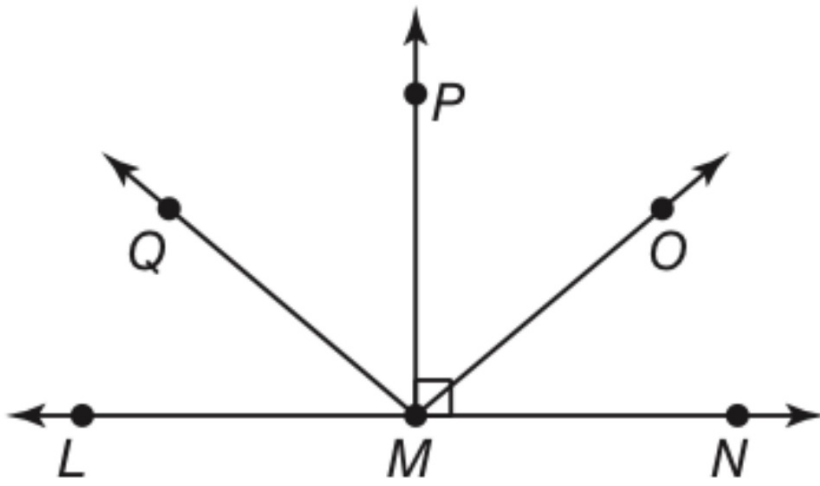
14.  $\angle OMN$

How to use a protractor





$\angle WZY = \underline{\hspace{2cm}}$



$$m \angle OMQ =$$

$$m \angle NMP =$$

$$m \angle LMQ =$$

## Angle Measures - worksheet