

# Concept: Angles and Their Measure

Name: \_\_\_\_\_

## COMPUTER COMPONENT

### **Instructions:**

In follow the **Content Menu** path:

**Measurement and Geometry > Angles and Their Measure**



Work through all Sub Lessons of the following Lessons **in order**:

- *In This Topic*
- *Lines and Rays*
- *Angles – An Introduction*
- *The Degree*
- *Classifying Angles*
- *Measuring Angles*
- *Estimating Angle Measure*

Additional Materials Required: *Coloring pencils and a protractor*



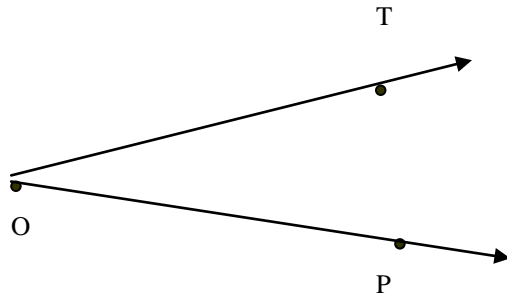
As you work through the computer exercises, you will be prompted to make notes in your notebook/math journal.

### SUMMARY

1. Use a ruler to draw and, in your own words, give the meaning of the following terms that you have used in this section.

<b>Term</b>	<b>Example</b>	<b>Definition</b>
Line		<i>An infinite set of points that extends in both directions.</i>
Ray		<i>An infinite set of points that starts at one point and extends through a second point.</i>
Angle		<i>Two rays with a common start point can differ by the amount of rotation from a 'pivot' called a vertex.</i>
Degree	$45^\circ$	<i>Unit of measure to record the amount of rotation of an angle formed by two rays.</i>
Vertex		<i>A common start point for two rays.</i>

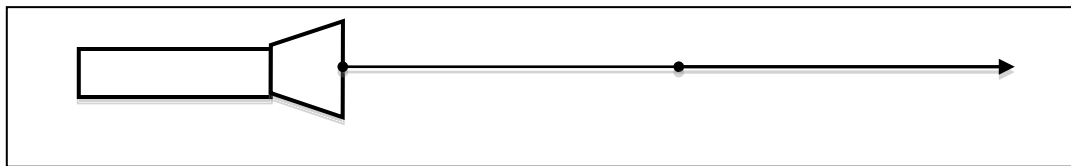
2. Name this angle in two different ways:



$\angle TOP$  or  $\angle POT$

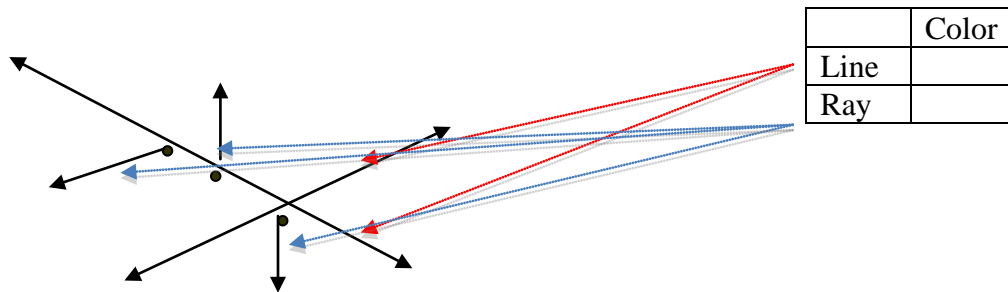
### OFF COMPUTER EXERCISES

1. A Riddle: What small hand device do you have at home that uses batteries to produce light? Draw a sketch to illustrate how it resembles the definition of a *RAY*?



*A Flashlight*

2. For this question you will need two colored pencils. Finish the legend at the right to show your choices. With one color, trace over two lines and with the other trace over three rays.



(NOTE: Students might choose a line segment to represent a ray; this should be accepted too.)

3. We keep lines and rays separate from one another by naming them. Letters are used for this labeling. In the following chart, you will see some models of rays and lines. Indicate how you would name these. Give two answers when possible.

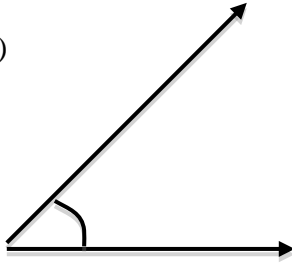
Model	Name	Other Name (if possible)
	$\overleftrightarrow{BA}$	$\overleftrightarrow{AB}$
	$\overleftrightarrow{CD}$	
	$\overrightarrow{EF}$	
	$\overleftrightarrow{GH}$	$\overleftrightarrow{HG}$

4. Recall the classification scheme for angles. The range is provided below. Your task is to name the type of angle and then provide a drawing of the angle.

Range (in degrees)	Name of Class	Drawing
$> 0^\circ$ but $< 90^\circ$	<b>ACUTE</b>	
$90^\circ$	<b>RIGHT</b>	
$> 90^\circ$ but $< 180^\circ$	<b>OBTUSE</b>	
$180^\circ$	<b>STRAIGHT</b>	
$360^\circ$	<b>FULL ROTATION</b>	

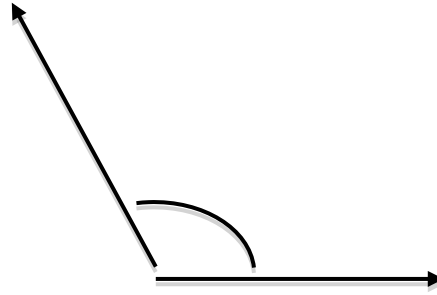
5. Estimate, measure and classify the following angles.

(a)



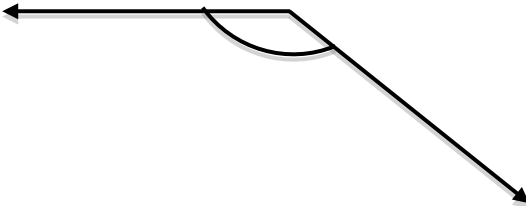
Answers may vary  
 $45^\circ$   
 Acute

(b)



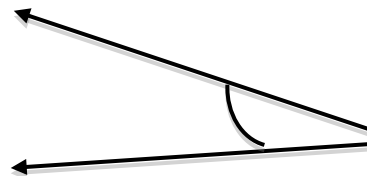
Answers may vary  
 $118^\circ$   
 Obtuse

(c)



Answers may vary  
 $141^\circ$   
 Obtuse

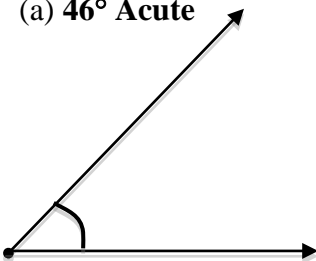
(d)



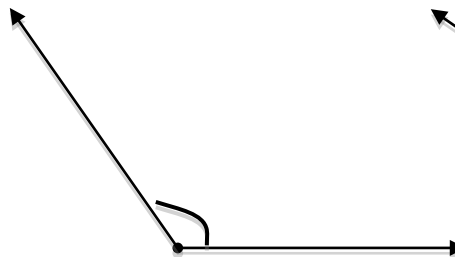
Answers may vary  
 $23^\circ$   
 Acute

6. Draw and classify the following angle measurements.

(a)  $46^\circ$  Acute



(b)  $124^\circ$  Obtuse



(c)  $215^\circ$  Reflex

