


ESSENTIAL QUESTION: How do you identify whether an angle is acute, right, obtuse, or straight?


QUESTIONS:

Define

Angle
2 different rays with the same endpoint, called the vertex 

Angle Measure
 $m\angle AOB =$ | difference between \overrightarrow{OA} & \overrightarrow{OB} |

Congruent Angles
Angles with the same measure

Angle Bisector
A ray that divides an angle into 2 congruent angles 

Adjacent Angles
2 angles that share one side/ray

Use to set up and solve problems

Protractor Postulate:

The rays of any angle can be matched one to one with the real numbers from 0 to 180.

Angle Addition Postulate:

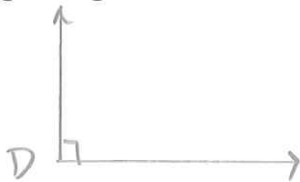
If $\angle ABC$ is adjacent to $\angle DBC$ then $m\angle ABC + m\angle DBC = m\angle ABD$.



Sketch the description

A1. Sketch and label each of the following described angles:

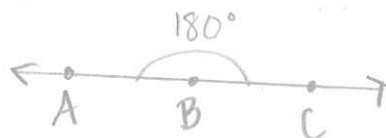
a. Right Angle D.



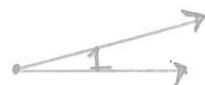
b. Obtuse $\angle XYZ$



c. $m\angle ABC = 180^\circ$



d. Acute $\angle 1$



SUMMARY:

Acute $0^\circ < m < 90^\circ$ 

Obtuse $90^\circ < m < 180^\circ$ 

Right = 90°

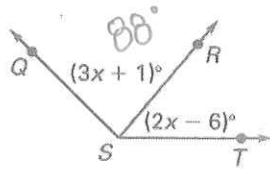
Straight = 180°



QUESTIONS:

Name & measure the angle

A2. Name all angles in the figure.



$\angle QSR$
 $\angle QST$
 $\angle RST$

A3. Find the measure of $\angle QST$ if $m\angle QSR = 88^\circ$ in #2.

$$3x + 1 = 88$$

$$3x = 87$$

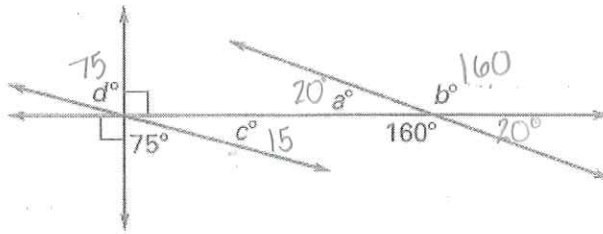
$$x = 29$$

$$88 + 2(29) - 6$$

$$88 + 58 - 6 = 140^\circ$$

Find the angle measure algebraically

A4. Find the measure of each lettered angle.



$a = 20^\circ$
 $b = 160^\circ$
 $c = 15^\circ$
 $d = 75^\circ$

Use a protractor to measure the angle

A5. Use a protractor to find the measure of the angles formed by the streets on the map. Use the letters to give the name of each angle.

a. Cherry & Chestnut

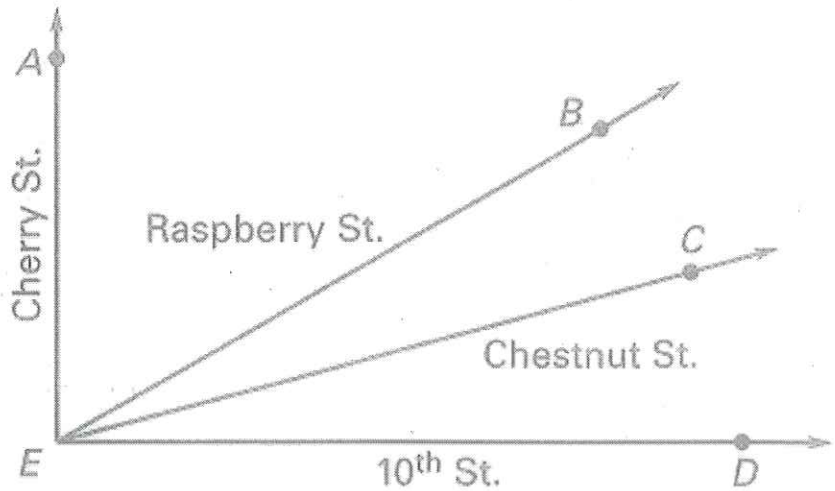
$$m\angle AEC = 75^\circ$$

b. Raspberry & 10th

$$m\angle BED = 30^\circ$$

c. Cherry and 10th

$$m\angle AED = 90^\circ$$



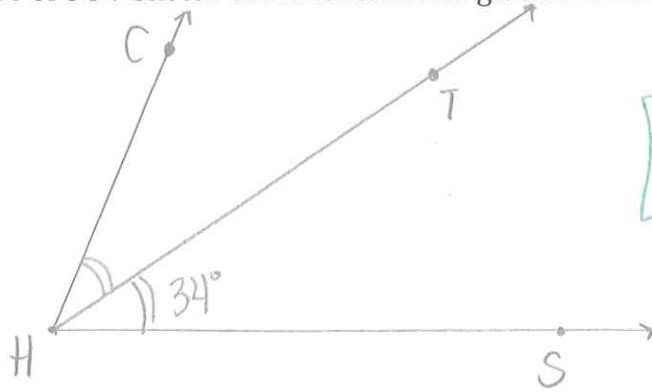
QUESTIONS:

4th ALG

Sketch the angle described

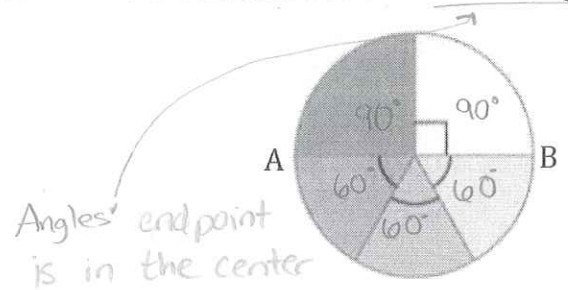
A6. If $\angle CHS$ is bisected by a line with point T forming $\angle THS$ with a measure of 34° . Sketch this situation and give $m\angle CHS$.

$$\begin{array}{r} 34 \\ 34 \\ \hline 68^\circ \end{array}$$



$$m\angle CHS = 68^\circ$$

A7. Use the markings to determine the measure of each central angle. (\overline{AB} is a diameter)



Angles' endpoint is in the center

Draw or construct

A8. Use the space below to complete the following.

a. Draw $\angle SEP$, which is 104° .

b. Construct the bisector of $\angle SEP$, label it \overline{ET} .

c. Construct $\angle OCT$, which is 1.5 times the measure of $\angle SEP$.

- 1) place point of compass on vertex and draw an arc on both sides of angle
- 2) Place the pt. of compass on your both arcs crossing the sides and create an arc within the angle
- 3) The bisector will cross through the intersection on the interior arcs

