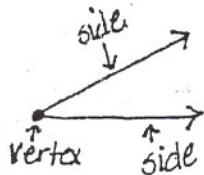


## Chapter Ten Study Guide

### 10-1 Angles

sides → 2 points that meet at a vertex.



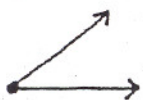
angle → consists of 2 rays that have the same endpoint.

degree → unit used in measuring angles.

protractor → tool used to measure angles.

different kinds of angles:

acute  
measures less  
than  $90^\circ$



right  
measures  
exactly  $90^\circ$



obtuse  
measures more  
than  $90^\circ$  less  
than  $180^\circ$



Straight  
measures  
 $180^\circ$



classify each angle as acute, obtuse, or right.

$56^\circ$



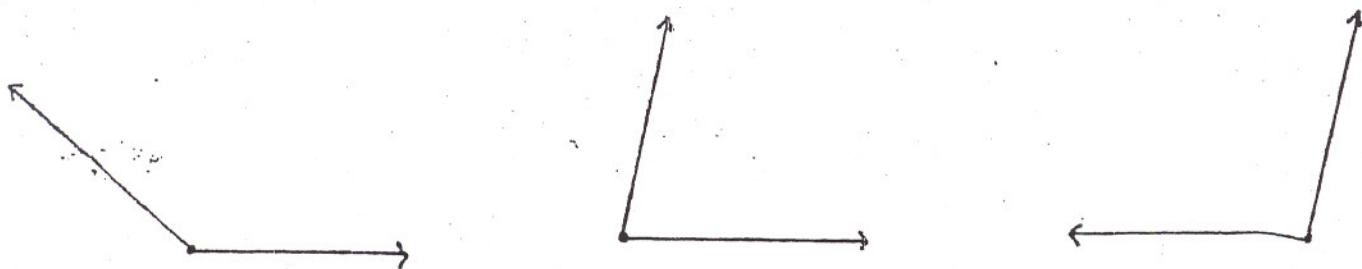
$102^\circ$



$90.9^\circ$



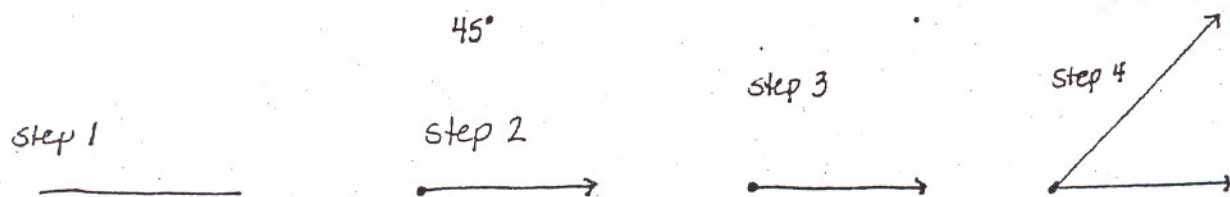
Tell the measure of each angle.



### Using Angle Measure

• straightedge: a ruler or any other object with a straight edge that can be used to draw a straight line.

1. Draw 1 side of an angle using a straightedge.
2. Mark vertex at one end, put an arrow ( $\rightarrow$ ) at the other end.
3. Place protractor on endpoint, then mark point on protractor that indicates degree needed.
4. With straightedge draw side that connects endpoint with the mark. Draw arrow at end of side.



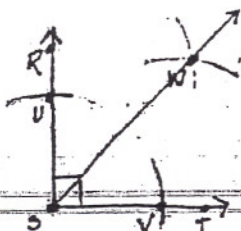
Draw the following angles.

$67^\circ$

$115^\circ$

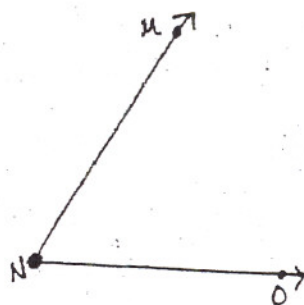
$12^\circ$

Bisect Angle  
 $\angle RST$



1. Place compass at S and draw an arc that intersects both sides of the angle. Then label these points.
2. Place compass on point U and draw an arc. Keeping the same compass setting draw an arc from point V. Make sure these arcs intersect.
3. Label the point where the points intersect. Connect this point to the vertex using a straightedge.

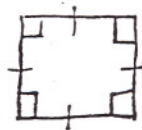
Bisect Angle  $\angle MNO$



## Two-Dimensional Figures

square: Quadrilateral

- 4 congruent sides
- 4 right angles
- Both pairs of opposite sides are parallel.

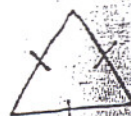


← parallelogram: both pairs opposite sides parallel.



3 sided figure triangle.

Triangle with all 3 sides congruent is an equilateral Triangle





**Directions:** Place a word from the word bank into the sentence spaces to make sense.

**Word Bank:**            straight            simple            three

A Polygon is a \_\_\_\_\_, closed figure formed by \_\_\_\_\_ or more \_\_\_\_\_ lines.

Words	Pentagon	Hexagon	Heptagon	Octagon	Nonagon	Decagon
# of Sides						
Draw a Model						

**Directions:** Use the Word Bank to fill in the spaces to make the sentence correct.

**Word Bank:**            polygon            regular

Sentence: A polygon that has all sides congruent and all angles congruent is called a \_\_\_\_\_.

**Word Bank:**            polygons            regular            squares            triangles

Sentence: Equilateral \_\_\_\_\_ and \_\_\_\_\_ are \_\_\_\_\_.

**Directions:** Draw two Examples that are not a polygon and explain why.

#1      Example

#2      Example

Explain Why?

Explain Why?