Study the following.

<u>angle</u> (**ang**-guhl) – two rays that have a common endpoint. They form a V shape. (I drew an angle by drawing two rays.)

<u>vertex</u> (**vur**-teks) – where the endpoints meet in an angle. (The vertex was labeled G.)

<u>side</u> (**side**) – each ray on an angle is called a side of the angle. (I drew first one side of the angle, and then the other.)

∠   - a symbol for "angle".

Say each word out loud and write it in the blank.
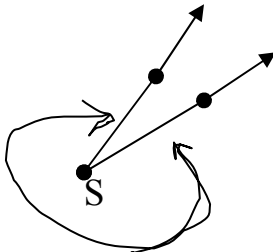
angle_____
vertex_____
side_____

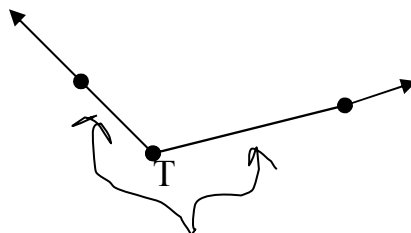**Write each definition in your own words.**

angle

vertex

side

Study the following examples.

Sides   sides

The vertex is S.   The vertex is T.
This is ∠ S.   This is ∠ T.

Write two sentences using each word.
 angle
1.

2.

vertex
1.

2.

side
1.

2.

Matching.

angle   two rays that have a common endpoint.

vertex   each ray of an angle

side   the symbol for angle

∠   where the endpoints meet in an angle.

Draw three examples of an angle.
Use a capital letter to label the vertex.
Label the sides and the vertex for each angle.

1.   2.   3.

Write three examples of angles using the angle symbol and a capital letter for the vertex. (∠ E.)
1.

2.

3.

Study the following.

<u>unit of measure</u> (**yoo**-nit of **mezh**-ur) - a fixed amount used for measuring (An inch is a unit of measure.)

<u>unit</u> (**yoo**-nit) - (same as a unit of measure) – a fixed amount used for measuring. (An inch is a unit used to measure length.)

<u>degrees</u> (di-**greez**) – the units of measure used to measure angles, to show how open or closed the V of the angle is.

º   - the symbol for "degrees".

<u>protractor</u> (**proh**-trak-tur) - a see-through plastic tool used to measure the size of angles.

Say each word out loud and write it in the blank.

unit_____
measure_____
degrees_____
protractor_____

Write each definition in your own words.

unit of measure

unit

degrees

protractor

Write two sentences using each word.

unit of measure
1.

2.

unit(s)
1.

2.

degrees
1.

2.

protractor
1.

2.

Matching.

unit of measure   a see-through plastic tool used to measure the size of angles

unit   the units of measure used to measure angles

degrees   a fixed amount used for measuring

protractor   a fixed amount used for measuring

Fill in the blanks.
1.   Feet is a _____.

2.   Gallons is a _____.
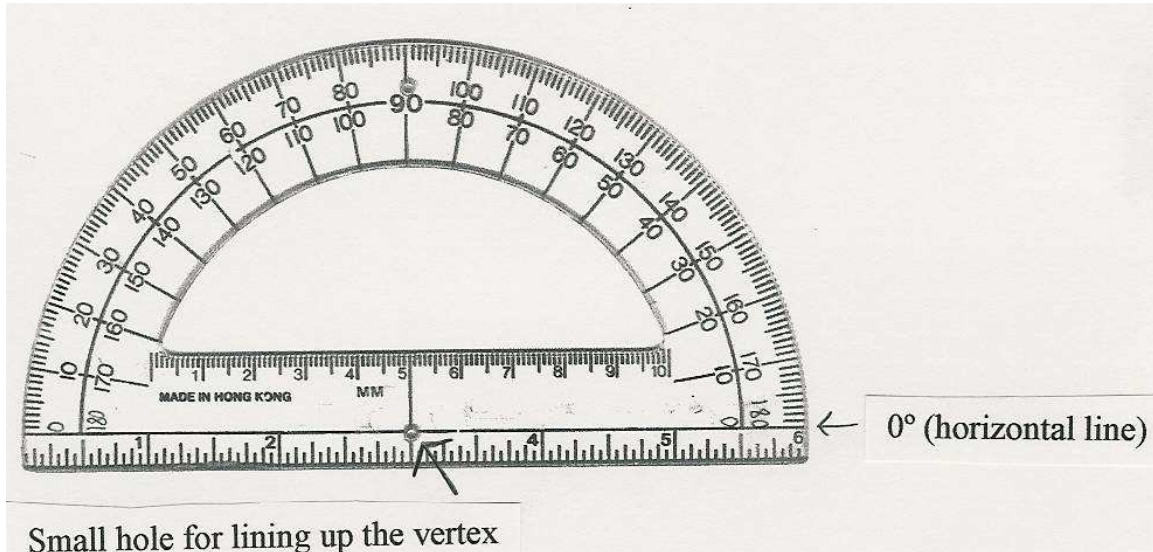
3.   Degrees is a _____ used to measure

_____.

4.   º is the symbol for _____.

5.   10º means ten _____.

6.   75º means _____.

Study the following.

This is a picture of a protractor.

Small hole for lining up the vertex

← 0° (horizontal line)

To measure an angle using a protractor, you have to line up two things.
1. line up the vertex with the lower center of the protractor where the two lines cross. Sometimes there is a small hole in the protractor here.
2. line up one of the rays of the angle, with the horizontal line across the bottom, labeled zero degrees.

Once the protractor is lined up, you read the number of degrees where the second ray goes.
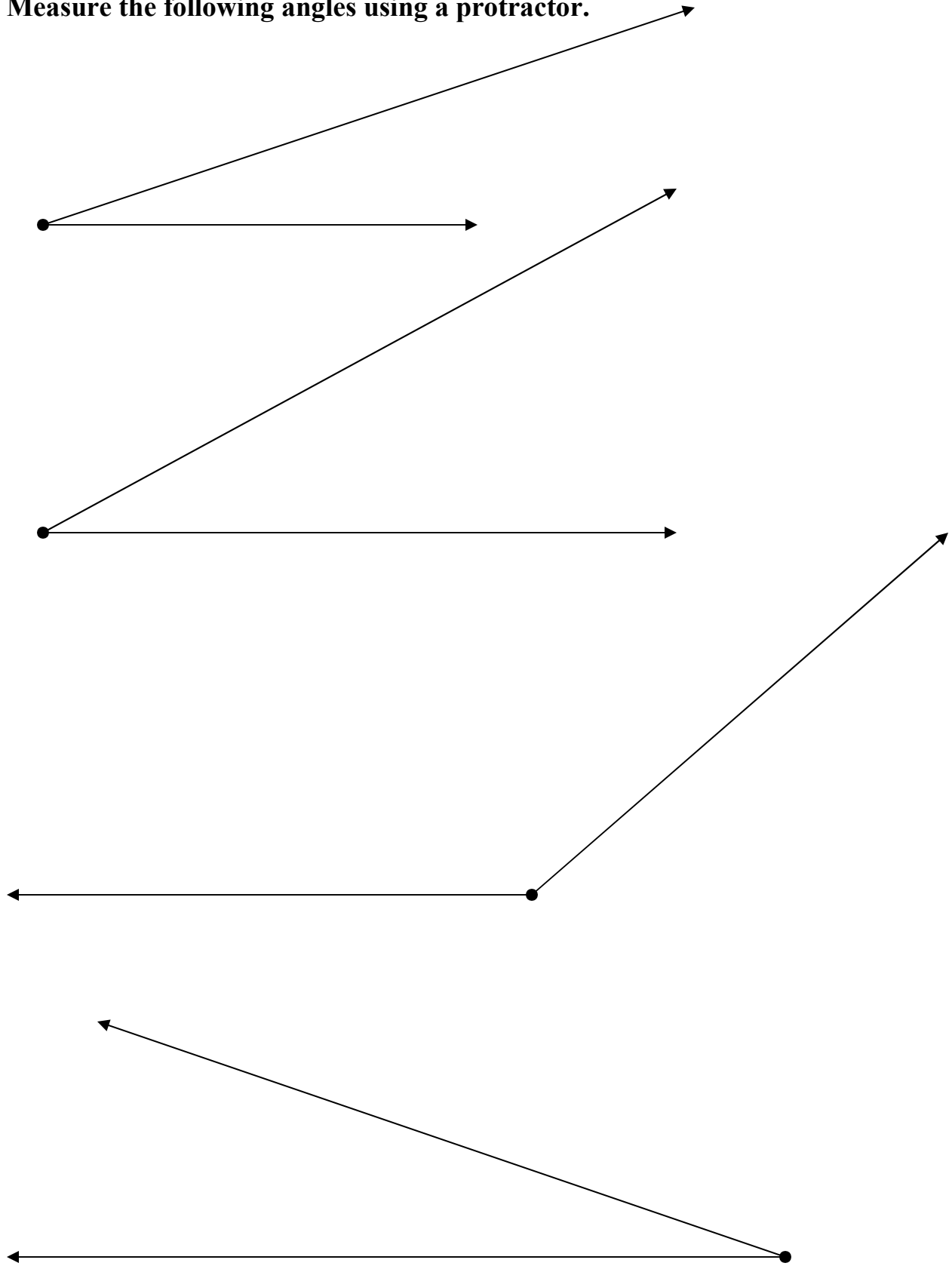
Example:

vertex
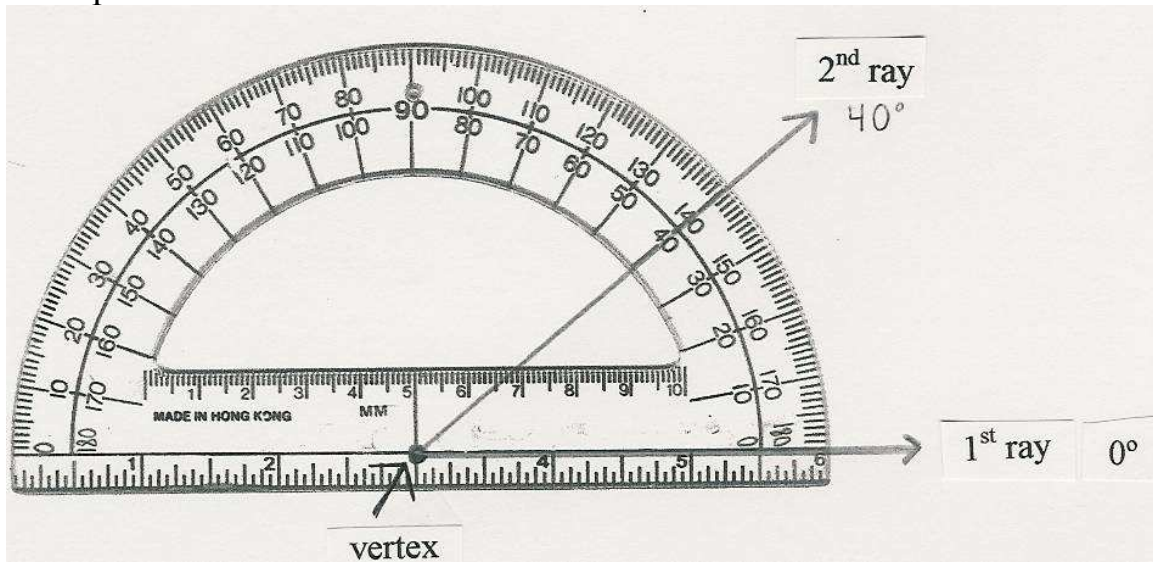
Be sure to look at the correct row of numbers when reading degrees. Protractors are made to measure angles from both directions. Use the row that starts with zero where your first ray is located.
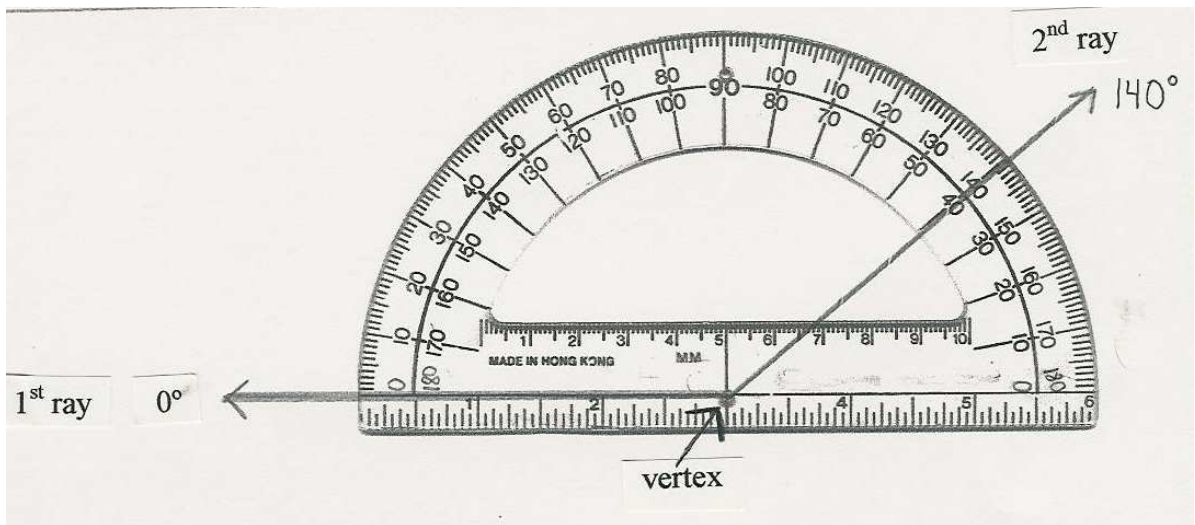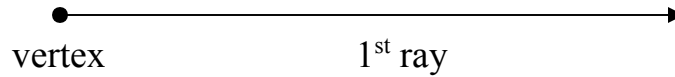

vertex

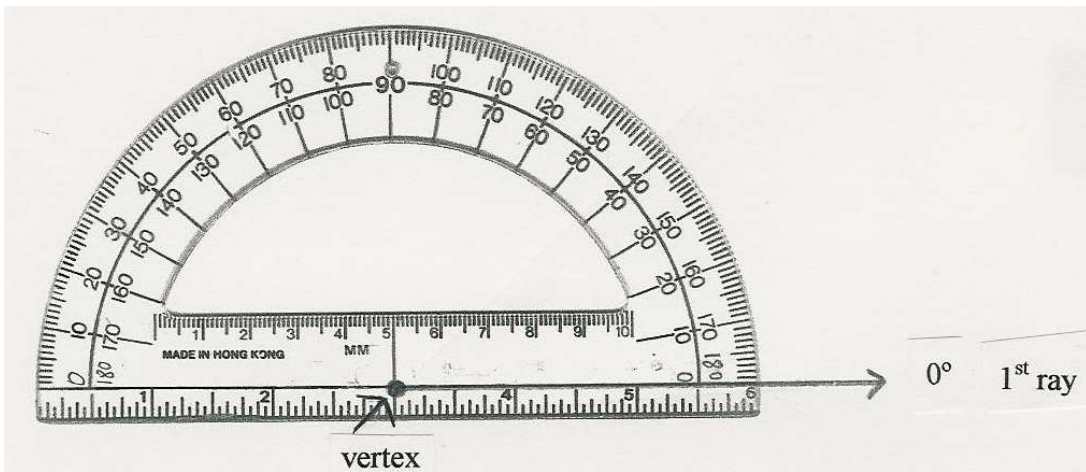**Measure the following angles using a protractor.**

Draw three angles using a ruler, and measure them with a protractor.

Study the following.
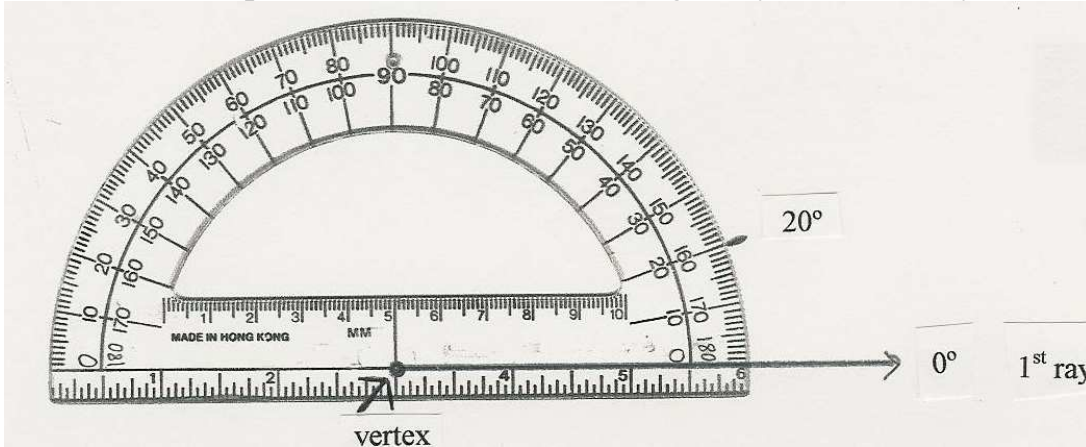
To draw an angle of a certain number of degrees, first draw a ray and mark the vertex with a dot.

vertex   1st ray

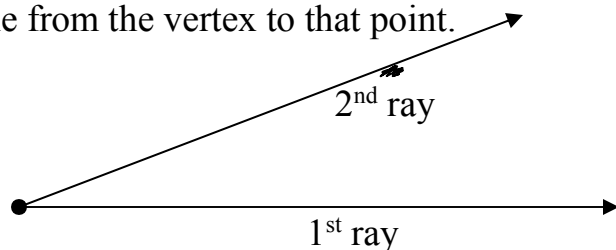Next line up the protractor the same way you did above, lining up the vertex and the line.

0°   1st ray

vertex

Then mark the spot next to the number of degrees you want. Say 20°.

20°

0°   1st ray

vertex

Remove the protractor and draw a line from the vertex to that point. This is the 2nd ray.

You have now drawn a 20° angle.

2nd ray

1st ray

Draw a 60º angle.
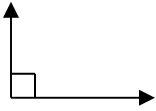
Draw a 150º angle.

Draw a 30º angle.

Study the following.

90º - an angle shaped like the corner of a square.

180º   - two rays going in opposite directions and forming a straight line.

right angle (**rite ang**-guhl)   – a 90 degree angle

 -the two lines that make the small box, show the angle is right angle (90º)

 -the line that makes the curve, shows the angle is <u>not</u> a right angle (90º). It also helps to show which angle(s) you are talking about.

m   - m stands for "the measure of" when it is written in front of an angle symbol. (m∠A means "the measure of angle A.)

Say each word out loud and write it in the blank.

right_____
angle_____

Write each definition in your own words.

90º

180º

right angle

Write two sentences using the words "right angle".
 1.

2.

Matching.

90º   stands for "the measure of"

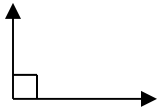180º   two rays going in opposite directions and
                                       forming a straight line

right angle
                                       an angle shaped like the corner of a square
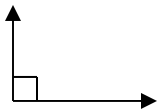

                                       words meaning a 90 degree angle
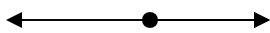

                   two lines that make a small box to show an
                                       angle is 90º

m   a curvy line that shows an angle is not 90º

Fill in the blanks.

    1. This is a _____ angle.

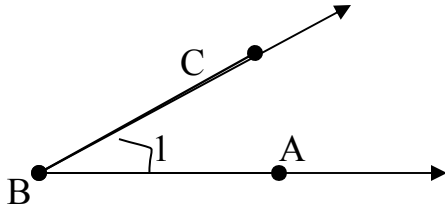   2. This is a _____ angle.

     3. This is not a _____ angle.

4. m $\angle$ C means _____.

5. m $\angle$ Y means _____.

Study the following.

Ways to show which angle you are talking about.

This angle can be described in the following 5 ways.

∠ B   - you can name the vertex if there are not any other angles with the same vertex.

∠ ABC   - you can name a point on one ray, the vertex, and a point on the other ray.

∠ CBA   - same as above only starting from the other ray.

∠ 1   - if there is a number inside the V of the angle, you can call the angle by this number.
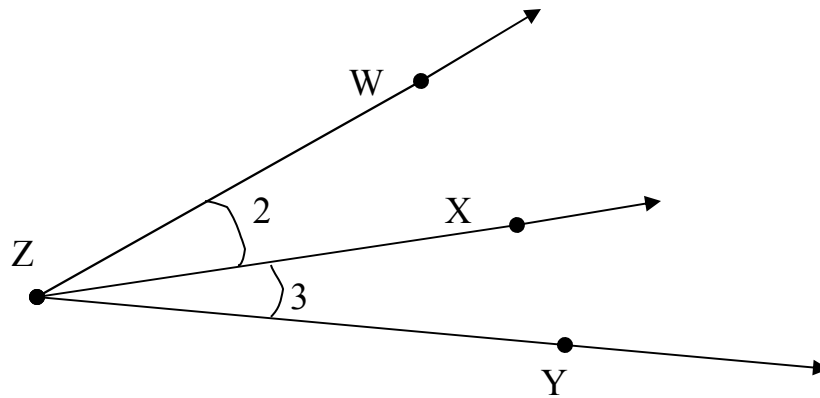
angle B   - you can write out the word angle in place of the symbol for any of the above.

Name this angle 5 different ways.
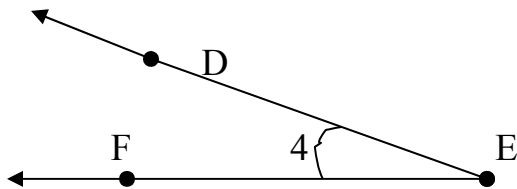
1.
2.
3.
4.
5.

Answer the following questions about this diagram.

1. Why can't you call ∠ 2 , ∠ Z? _____

_____

2. What are the two other names for ∠ 2? _____ and
_____.

3. What are the two other names for ∠ 3? _____ and
_____.

Study the following.

right angle (**rite**) – a 90º angle.

acute angle (uh-**kyoot**) – an angle measuring between 0º and 90º

obtuse angle (uhb-**tooss**) – an angle measuring between 90º and 180º

straight angle (**strayt**) – a 180º angle

Say each word out loud and write it in the blank.

right_____
acute_____
obtuse_____
straight_____

Write each definition in your own words.

right angle

acute angle

obtuse angle

straight angle

Write two sentences using each word.

right angle
1.

2.

acute angle
1.

2.

obtuse angle
1.

2.

straight angle
1.

2.

Matching.

right angle   a 180º angle

acute angle   a 90º angle.

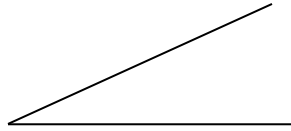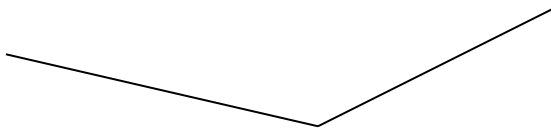obtuse angle   an angle measuring between 90º and 180º

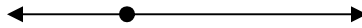straight angle   an angle measuring between 0º and 90º
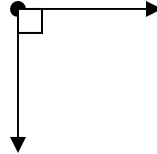
Study the following.

To help you remember the difference between acute and obtuse, think of an acute angle and being **a cute** little angle. It is smaller than an obtuse.

Label each angle.

_____

_____

_____

_____

Study the following.

complementary angles (kom-pli-**men**-tuh-ree) - two angles whose measures add up to 90º (One angle was 40º and the other was 50º. Since 40 + 50 = 90, the angles are complementary angles.)

supplementary angles (suhp-luh-**men**-tuh-ree)– two angles whose measures add up to 180º (One angle was 80º and the other was 100º. Since 80 + 100 = 180, the angles are supplementary angles.)

adjacent (uh-**jay**-suhnt) – next to (He built the dog house adjacent to the shed.)

adjacent angles – angles that are next to each other and have the same vertex. They also share a ray in the middle. (I drew three rays to make two adjacent angles.)

adjacent complementary angles – two adjacent angles whose measures total 90º

adjacent supplementary angles – two adjacent angles whose measures total 180º

Say each word out loud and write it in the blank.

complementary_____
supplementary _____
adjacent_____

Write each definition in your own words.

complementary angles

supplementary angles

adjacent

adjacent angles

adjacent complementary angles

adjacent supplementary angles

Write two sentences using each word.

complementary angles
1.

2.

supplementary angles
1.

2.

adjacent
1.

2.

adjacent angles
1.

2.

Matching.

complementary angles   two angles whose measures add up to 90º

supplementary angles   next to

adjacent   two adjacent angles whose measures total 90º

adjacent angles   two angles whose measures add up to 180º
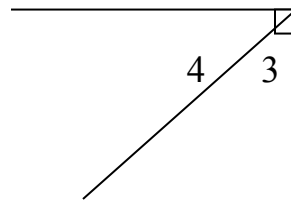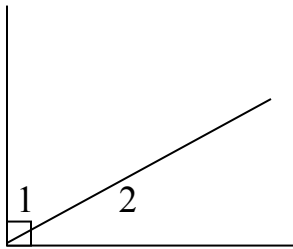
adjacent complementary angles   angles that are next to each other and have the same vertex

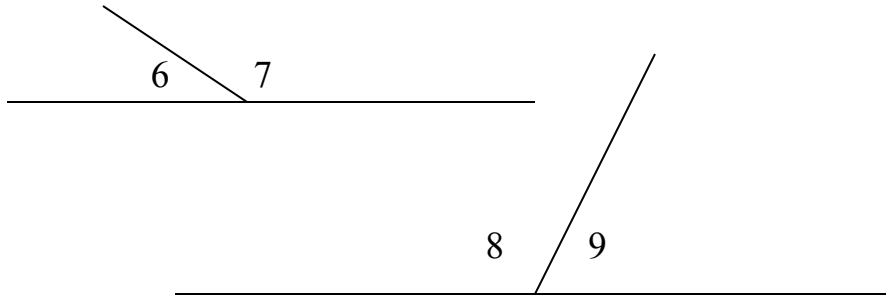adjacent supplementary angles   two adjacent angles whose measures total 180º

Study the following examples.
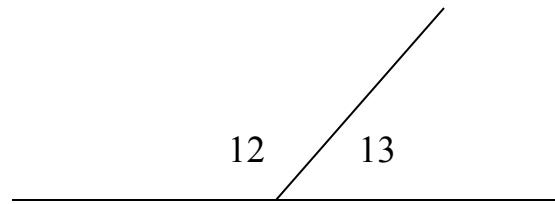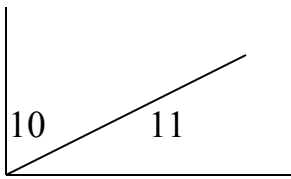
Adjacent complementary angles.

Study the following examples.

Adjacent supplementary angles.

Fill in the blanks.

1. Angle ___ and angle _____ are complementary adjacent angles.

2. Angle ___ and angle _____ are supplementary adjacent angles.