

Republic of the Philippines
Department of Education
NATIONAL CAPITAL REGION
Misamis Street, Bago-Bantay, Quezon City

**UNIFIED SUPPLEMENTARY LEARNING MATERIALS
(USLeM)**



MATHEMATICS

EXPECTATIONS:

You will **represent a point, line, and plane using concrete and pictorial models, illustrate subsets of a line and classify different kinds of angles and measure an angle.**

Specifically, this learning material will help you to:

- Describe and name a point, a line, and a plane
- Illustrate the relationships of points, lines, and planes
- Define, identify, and name the subsets of a line
- Illustrate and define an angle
- Name and identify the parts of an angle
- Illustrate the different kinds of angles: acute, right, and obtuse

Let us start your journey in learning more about Points, Lines, and Planes, Subsets of Line and Angles. I am sure you are ready and excited to answer the Pretest. Smile and cheer up!

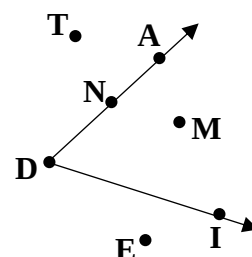
PRE-TEST

Directions: Read the questions carefully. Encircle the letter of the correct answer. If the answer is not found in the choices, write "E".

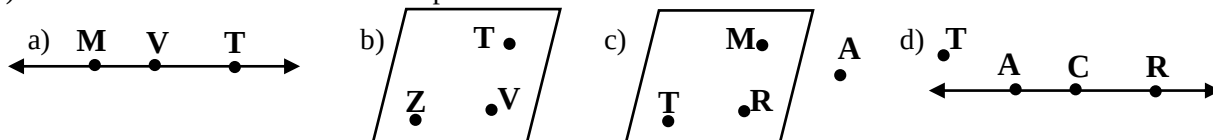
- 1) Which of the following is NOT considered as undefined term?
a) Point b) Line c) Plane d) Angle
- 2) It is a subset of a line consisting of two endpoints and all the points in between.
a) Ray b) Line Segment c) Opposite Rays d) Congruent Segments
- 3) Given the three statements below, identify the statement/s that is always true about points?
I. Coplanar points lie on the same line.
II. A point denotes a position in space and has no dimension.
III. A line has two endpoints.
a) Statement II only. c) Statements I and III only.
b) Statements II and III only. d) Statements I, II, and III.
- 4) Which of the following is an angle that measures between 0° and 90° ?
a) Right Angle b) Obtuse Angle c) Acute Angle d) Reflex Angle
- 5) What is the vertex of $\angle TOY$?
a) T b) O c) Y d) cannot be determined
- 6) How many distinct line segments can be named in the figure?
a) 3 b) 4 c) 5 d) 6
- 7) Using the same figure in #6, how many rays can be named in the figure?
a) 3 b) 4 c) 5 d) 6
- 8) Using the same figure in #6, which is not the correct name for the figure?
a) $\overleftrightarrow{AC}$ b) $\overleftrightarrow{DA}$ c) $\overleftrightarrow{Am}$ d) $\overleftrightarrow{BC}$
- 9) What is formed by two non-collinear rays with a common endpoint called vertex?
a) line b) opposite rays c) angles d) plane
- 10) Which statement is TRUE?
a) The intersection of a line and a plane is a line. c) The intersection of two planes is a point.
b) Two lines will always intersect at a point. d) Two coplanar lines that do not intersect are called skew lines.

For items 11 – 13, refer to the figure at the right.

- 11) Which of the following cannot be used to name the given angle?
a) $\angle D$ b) $\angle ADI$ c) $\angle IDA$ d) $\angle AID$
- 12) Which point lies in the interior of the angle?
a) T b) E c) M d) D



- 13) What kind of angle is it?
 a) Right Angle b) Obtuse Angle c) Acute Angle d) cannot be determined
- 14) Which illustration shows collinear points?



- 15) Which of the following can best describe a point?
 a) Grain of salt b) Stars in the sky c) Tip of a needle d) a position in space

Great, you finished answering the questions. You may ask your facilitator to check your answers. Congratulations and keep on learning!

LOOKING BACK TO YOUR LESSON

This activity will give you some ideas on the terms you will encounter in this lesson.

“WORD HUNT”

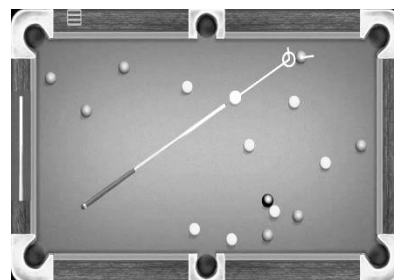
O	P	P	O	S	I	T	E	R	A	Y	S	A	O	L
Z	X	Y	V	Z	N	Y	A	X	O	Z	N	B	I	D
O	D	U	H	T	B	G	W	H	T	G	L	N	Q	P
R	J	E	O	P	L	A	N	E	L	E	E	M	O	R
A	A	U	L	K	X	F	G	E	A	S	R	I	T	P
E	Q	C	M	G	Y	I	C	R	E	G	N	I	R	Y
N	W	A	U	W	N	W	Y	G	N	T	F	O	O	R
I	O	P	S	T	D	A	M	A	C	D	T	N	O	R
L	X	H	G	L	E	E	E	H	R	R	Q	I	S	A
L	R	E	Z	V	N	A	P	S	A	I	R	G	U	N
O	N	S	T	T	L	B	N	C	U	E	P	K	Z	A
C	J	B	O	R	X	I	T	G	T	T	U	C	E	L
U	R	V	D	Z	E	O	N	N	L	V	B	G	U	P
Q	T	E	U	S	R	V	I	E	Z	E	K	O	S	O
V	R	I	G	H	T	A	N	G	L	E	H	D	R	C

Instructions: Find the words listed below and circle them in the word hunt puzzle.

POINT
 LINE
 PLANE
 LINE SEGMENT
 RAY
 OPPOSITE RAYS
 COLLINEAR
 COPLANAR
 VERTEX
 INTERIOR
 EXTERIOR
 PROTRACTOR
 RIGHT ANGLE
 OBTUSE ANGLE
 ACUTE ANGLE

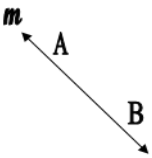
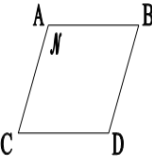
BRIEF INTRODUCTION

Did you ever play billiards? Billiards is a game played on a table with pockets in it, and with the use of a cue stick to strike small balls into the pocket. Many Filipinos considered Efren ‘Bata’ Reyes as one of the greatest pool players of all time. Pool is a game like billiard. What comes into your mind when you see the picture at the right? What lessons in geometry is it related?



Undefined Terms: Points, Lines and Planes

Undefined terms are basic terms that cannot be defined but can be described. Some of these undefined terms in geometry are point, line, and plane. These three terms are used as the basis for defining other terms in geometry.

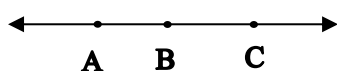
Undefined Terms	Description	Representation	Naming	Other Information	Concrete and Pictorial Model
Point	a position in space	A 	A point is named using a capital letter. The representation can be named as point A .	Has no dimension, no length, no width, no thickness, and does not occupy an area	tip of a needle, mole,
Line	set of continuous points that extends indefinitely in both directions		A line is named using any two points on the line with a line over the two letters or by using a single lower-case script letter. The representation can be named as: $\overleftrightarrow{AB}$, $\overleftrightarrow{BA}$, or $\overleftrightarrow{m}$	It has no width and no thickness. It is straight and has an infinite length	edge of a ruler, string
Plane	set of points contained in a flat surface and extends indefinitely in all directions		A plane is named by a single script capital letter or by any three points in the plane which are not on the same line. The representation can be named plane N , plane ABD , plane ABCD	Has infinite length and width but no thickness. A plane is commonly denoted as a closed slanted four-sided figure	a sheet of paper, the surface of a table

Relationship between Points, Lines, and Planes

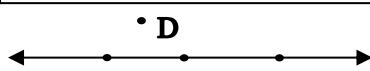
A **definition** is a statement that gives clear meaning to a word or phrase. Using the undefined terms, we can define other terms in geometry.

- 1) A **space** is the set of all points.
- 2) A **figure** is any set of points.
- 3) **Collinear Points** are points that lie on the same line.
- 4) **Non-collinear Points** are points that do not lie on the same line
- 5) **Coplanar Points** are points that lie in the same plane
- 6) **Non-coplanar Points** are points that do not lie in the same plane.

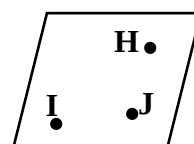
Examples:



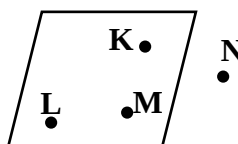
Points A, B and C are collinear points



Points D, E, F and G are non-collinear points because D is not on the line.



Points H, I and J are coplanar points.



Points K, L, M and N are non-coplanar points because N is not on the plane.

The **intersection** of geometric figures is the set of all points that are common to the given figures.

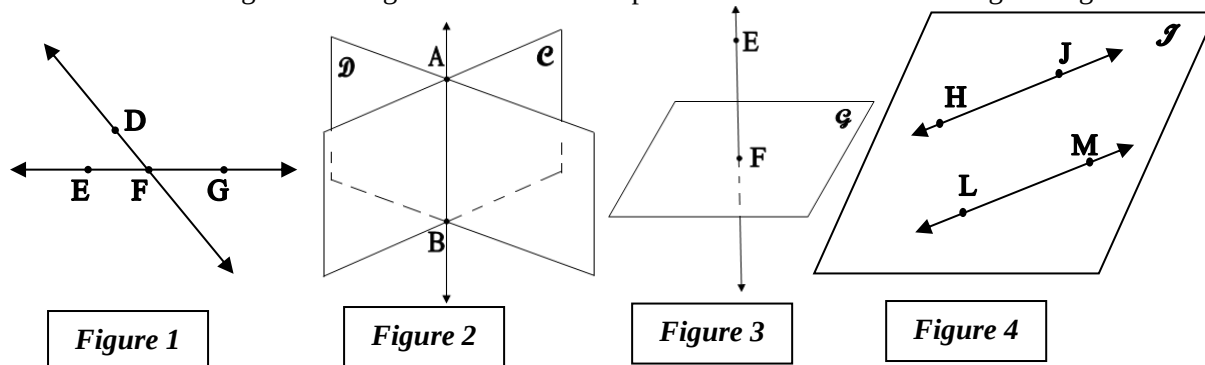


Figure 1 represents the intersection of two lines $\overleftrightarrow{DF}$ and $\overleftrightarrow{EG}$. Notice that both lines contain point F. Therefore, the intersection of two lines is a point and that point is called the point of intersection.

Figure 2 represents the intersection of two planes $\mathcal{D}$ and $\mathcal{C}$. Notice that common to both planes $\mathcal{D}$ and $\mathcal{C}$ is $\overleftrightarrow{AB}$. Therefore, the intersection of two planes is a line.

Note: The broken line symbolizes that it is in the back part of the figure.

Figure 3 represents the intersection $\overleftrightarrow{EF}$ and Plane $\mathcal{G}$. The line passes through the plane. Notice that common to both line and the plane is point F. Therefore, the intersection of a line and a plane is a point. (Note: The intersection of a line and plane can be an empty set if the line is parallel to the plane. The intersection of a line and a plane can also be a line if the plane contains that line.)

Figure 4 represents plane $\mathcal{J}$ containing two lines $\overleftrightarrow{HJ}$ and $\overleftrightarrow{LM}$. The two lines do not have any point in common and even if you extend the two lines, there will be no intersection. These are called parallel lines. Therefore, two coplanar lines that do not intersect are called parallel lines.

Subsets of Line

A **line segment** is a subset of a line consisting of two endpoints and all the points in between.

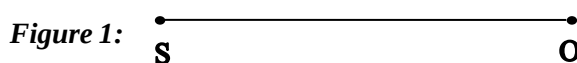
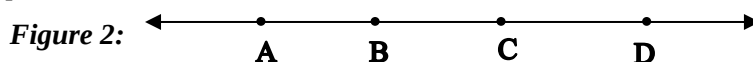


Figure 1 may be called $\overline{SO}$, read as “line segment SO”. $\overline{SO}$ is just the same with $\overline{OS}$.

Given this line with points A, B, C, and D:



In figure 2, we can form 6 different line segments which are as follows: $\overline{AB}$, $\overline{AC}$, $\overline{AD}$, $\overline{BC}$, $\overline{BD}$ and $\overline{CD}$. Note that naming different line segments is based on the two endpoints. Without listing the different line segments, we can know the *number of line segments* formed in a *given line* using this formula: $\frac{n(n-1)}{2}$, where n is the number of points in the given line.

Two line segments are said to be **congruent segments** if they have the same measure or length.

To know the measure of a line segment in a given number line, we get the absolute value of the difference of the coordinates of the two given points.

A **ray** is a subset of a line with only one endpoint and extends infinitely in only one direction.

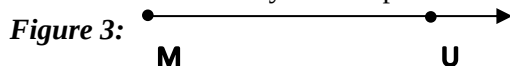


Figure 3 may be called $\overrightarrow{MU}$, read as “ray MU”. We name a ray with its endpoint first followed by another point on the ray.

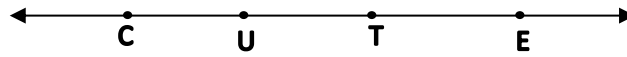
Using Figure 2, we can form 6 different rays which are as follows: $\overrightarrow{AB}$, $\overrightarrow{BC}$, $\overrightarrow{CD}$, $\overrightarrow{DC}$, $\overrightarrow{CB}$ and $\overrightarrow{BA}$. Without listing the different rays, we can know the *number of rays* formed in a *given line* using this formula: $2(n - 1)$, where n is the number of points in the given line.

To know the *number of rays* formed in a *given ray*, we use this formula: $n - 1$, where n is the number of points in the given ray.

Opposite rays are rays with a common endpoint but extending in opposite directions.

Examples:

1) Name the different line segments, rays and, opposite rays formed by the figure below:



Solutions: **Line segments:** $\overline{CU}$, $\overline{CT}$, $\overline{CE}$, $\overline{UT}$, $\overline{UE}$ and $\overline{TE}$

Rays: $\overrightarrow{CU}$, $\overrightarrow{UT}$, $\overrightarrow{TE}$, $\overrightarrow{ET}$, $\overrightarrow{TU}$ and $\overrightarrow{UC}$

Opposite Rays: $\overrightarrow{UC}$ and $\overrightarrow{UT}$, $\overrightarrow{TU}$ and $\overrightarrow{TE}$

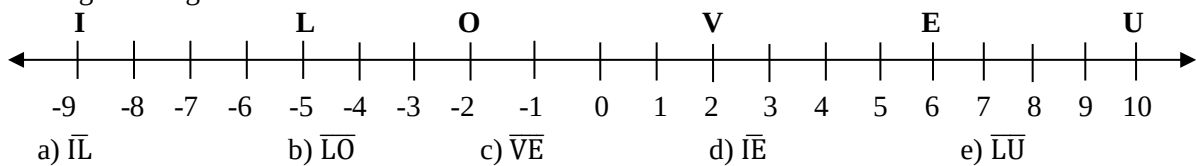
2) Find the number of line segments and rays formed in a given line with: a) 7 points b) 13 points

Solutions:

a) **Line segments:** $\frac{n(n-1)}{2} = \frac{7(7-1)}{2} = \frac{7(6)}{2} = \frac{42}{2} = 21$ **Rays:** $2(n-1) = 2(7-1) = 2(6) = 12$

b) **Line segments:** $\frac{n(n-1)}{2} = \frac{13(13-1)}{2} = \frac{13(12)}{2} = \frac{156}{2} = 78$ **Rays:** $2(n-1) = 2(13-1) = 2(12) = 24$

3) Determine the measure of the following line segment using the figure below and identify which are congruent segments.



Solutions:

a) The coordinate of I is -9 and L is -5. Therefore, $IL = |-9 - (-5)| = |-9 + 5| = |-4| = 4$

b) The coordinate of L is -5 and O is -2. Therefore, $LO = |-5 - (-2)| = |-5 + 2| = |-3| = 3$

c) The coordinate of V is 2 and E is 6. Therefore, $VE = |2 - 6| = |-4| = 4$

d) The coordinate I is -9 and E is 6. Therefore, $IE = |-9 - 6| = |-15| = 15$

e) The coordinate L is -5 and U is 10. Therefore, $LU = |-5 - 10| = |-15| = 15$

Notice that the symbol above the letters was removed because we are referring to its measurement.

$IL = VE$ therefore they are congruent segments. ($\overline{IL} \cong \overline{VE}$)

$IE = LU$ therefore they are also congruent segments. ($\overline{IE} \cong \overline{LU}$)

Naming and Parts of an Angle

An **angle** is formed by two non-collinear rays with a common endpoint. The two rays are called the **sides** of the angle and the common endpoint is called the **vertex** of the angle.

An angle is named using a number, the vertex of the angle or the vertex with a point on each side of the angle.

An angle separates a plane into three parts: the interior of the angle, the exterior of the angle, and the points on the side of the angle

Examples:

1) a) Name the angle formed in Figure 1. Identify its vertex and sides

b) Name the angles formed in Figure 2.

Solutions:

a) Possible names of the angle: $\angle ABC$, $\angle CBA$, $\angle B$ and $\angle 1$

Vertex: B

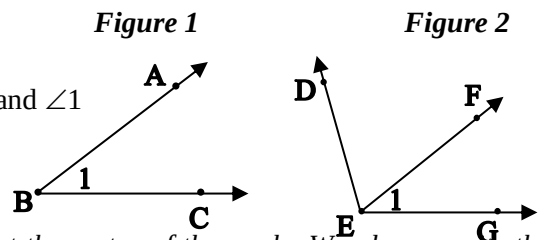
Sides: $\overrightarrow{BA}$ and $\overrightarrow{BC}$

(Note: We cannot name figure 1 as $\angle BAC$,

$\angle BCA$, $\angle CAB$, or $\angle ACB$ because A and C are not the vertex of the angle. We always write the vertex in the middle of the three letters)

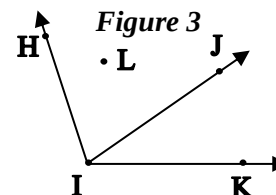
b) Different angles formed: $\angle DEF$ or $\angle FED$, $\angle FEG$ or $\angle GEF$ or $\angle 1$, and $\angle DEG$ or $\angle GED$

(Note: We cannot name figure 2 as $\angle E$ only because there is more than 1 angle whose vertex is E)



2) Using Figure 3, give an example to each of the following:

- | | |
|---------------------------------------|-----------------------------|
| a) interior of $\angle HIJ$ | d) interior of $\angle HIK$ |
| b) exterior of $\angle JIK$ | e) exterior of $\angle HIK$ |
| c) points on the side of $\angle HIK$ | |



Solutions:

- a) L b) H and L c) H, I and K d) L and J e) None

Angle Measurement and Kinds of Angles

The **measure of an angle** is the smallest amount of rotation about the vertex from one ray to the other. **Degree** is the unit of measure of an angle and the tool used to measure a given angle is **protractor**.

Example: The measure of $\angle ABC$ is 40 can be written as " $m\angle ABC = 40$ "

In this example, the measure of an angle must be limited to greater than 0° but less than 180° only.

To measure an angle or to find the number of degrees in an angle, we have to follow these steps:

- 1) Place the center of the protractor at the vertex of the angle
- 2) Place the straight edge of the protractor along one side of the angle.
- 3) The other side of the angle needs to cross the numbered part of the protractor.
- 4) The size of the angle can be read off the scale.

Other information: $1^\circ = 60$ minutes written as "60"
 1 minute = 60 seconds written as "60"
 So therefore, $1^\circ = 59' 60''$

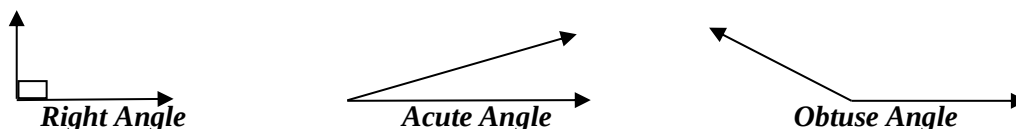
Angle Addition Postulate: If D is in the interior of $\angle BAC$, then $m\angle BAD + m\angle DAC = m\angle BAC$

Kinds of Angles

A **right angle** is an angle that measures 90° .

An **acute angle** is an angle whose measure is greater than 0° but less than 90° .

An **obtuse angle** is an angle whose measure is greater than 90° but less than 180° .



Note that right angles are marked using a small square on the vertex.

ACTIVITIES

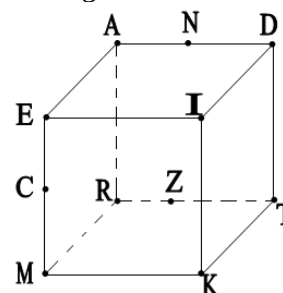
Activity 1: Tell whether each of the following represents a point, a line, or a plane.

- | | |
|---|---------------------------------------|
| _____ 1) star in the sky as seen from the Earth | _____ 6) a clothesline |
| _____ 2) curtain rod | _____ 7) the crease in a folded paper |
| _____ 3) edge of a ruler | _____ 8) corner of a room |
| _____ 4) cartolina | _____ 9) a page of a book |
| _____ 5) a knot on a piece of thread | _____ 10) a magic wand |

Activity 2: Use the figure at the right to determine whether each of the following is **True** or **False**.

- _____ 1) A, N and D are collinear.
- _____ 2) A, R, Z, K are coplanar.
- _____ 3) C, R, Z and T are non-coplanar.
- _____ 4) M, K and T are coplanar.
- _____ 5) M, R, A and I are coplanar
- _____ 6) R, Z and T are non-collinear.
- _____ 7) E, C and M are collinear.
- _____ 8) M, K, C and I are coplanar.
- _____ 9) M, R, Z, T and K are coplanar.
- _____ 10) A, I, R and N are non-collinear.

Figure:



Activity 3: Use the figure at the right to answer the following questions.

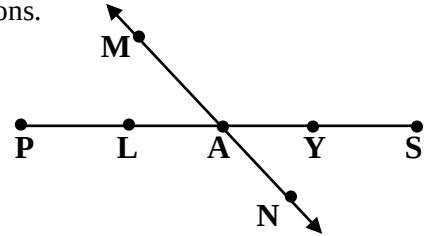
1) Name all the distinct line segments in $\overleftrightarrow{PS}$

2) How many line segments were formed? _____

3) Name all the rays in $\overleftrightarrow{MN}$ _____

4) How many rays were formed? _____

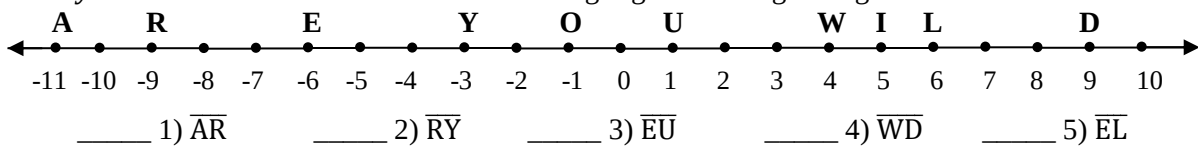
5) Name the opposite rays _____



Activity 4: Determine the number of line segments and rays formed in a line with the given number of points.

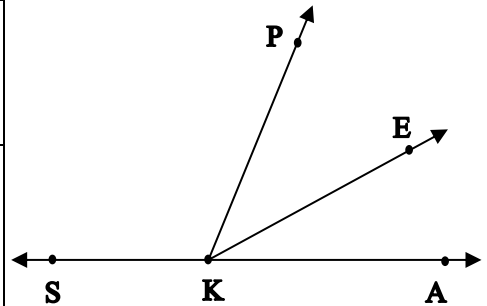
- | | | |
|--------------|---------------------|-------------|
| 1) 6 points | line segment: _____ | rays: _____ |
| 2) 10 points | line segment: _____ | rays: _____ |
| 3) 12 points | line segment: _____ | rays: _____ |
| 4) 9 points | line segment: _____ | rays: _____ |
| 5) 15 points | line segment: _____ | rays: _____ |

Activity 5: Determine the measure of the following segments using the figure below.



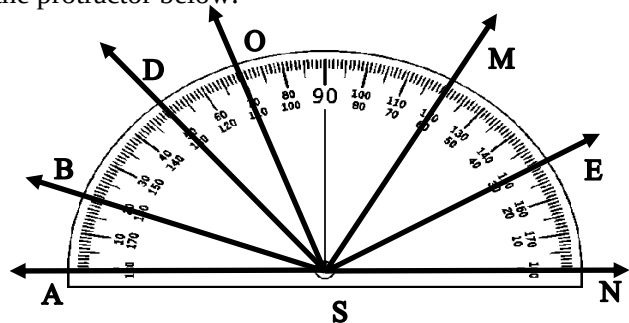
Activity 6: Use the figure at the right to complete the table below.

Name of the different Angles	Sides of the Angle	Points in the Interior	Points in the Exterior	Points on the side
$\angle PKS$	$\overrightarrow{KP}$ and $\overrightarrow{KS}$	NONE	E and A	P, K and S



Activity 7: Find the measure of the angles using the protractor below.

- | | |
|---------------------------|------------------------|
| _____ 20° 1) $\angle ASB$ | _____ 6) $\angle ASM$ |
| _____ 2) $\angle ASO$ | _____ 7) $\angle ESA$ |
| _____ 3) $\angle BSN$ | _____ 8) $\angle DSE$ |
| _____ 4) $\angle OSN$ | _____ 9) $\angle BSO$ |
| _____ 5) $\angle MSE$ | _____ 10) $\angle BSM$ |



Activity 8: Tell whether the given measure will form a right angle, an acute angle or an obtuse angle.

- | | | |
|------------------------|--------------------------------|----------------------------------|
| _____ 1) 45° | _____ 6) 90° | _____ 11) $90^\circ 1' 13''$ |
| _____ 2) 75° | _____ 7) $89^\circ 59' 60''$ | _____ 12) 179° |
| _____ 3) 111° | _____ 8) 90.001° | _____ 13) $45^\circ + 35^\circ$ |
| _____ 4) 89.99° | _____ 9) 32.5° | _____ 14) $75^\circ + 15^\circ$ |
| _____ 5) 178° | _____ 10) $178^\circ 13' 40''$ | _____ 15) $128^\circ - 48^\circ$ |

REMEMBER

- ❖ The three **undefined** terms are point, line, and plane
- ❖ A **point** denotes a position in space and has no dimension.
- ❖ A **line** is a series of points that extends in opposite directions without end.
- ❖ A **plane** is a flat surface.
- ❖ Points that lie on the same line are **collinear** while points that do not lie on the same line are **non-collinear**.
- ❖ Points and lines on the same plane are **coplanar** while points that do not lie on the same plane are **non-coplanar**.
- ❖ The intersection of two lines is a **point**.
- ❖ The intersection of a line and plane is a **point**. It can be an empty set if the line is parallel to the plane. It can also be a line if the plane contains the line.
- ❖ The intersection of two planes is a **line**.
- ❖ **Subsets of a Line:**
 - A **line segment** is subset of line consisting of two endpoints and all the points in between.
 - A **ray** is a subset of a line with only one endpoint and extends infinitely in only one direction.
- ❖ **Opposite rays** are rays with a common endpoint but extending in opposite directions.
- ❖ To know the **number of line segments** formed in a *given line*, use this formula: $\frac{n(n-1)}{2}$, where n is the number of points in the given line.
- ❖ To know the **number of rays** formed in a *given line*, use this formula: $2(n - 1)$, where n is the number of points in the given line.
- ❖ An **angle** is formed by two non-collinear rays with a common endpoint. The two rays are called the **sides** of the angle and the common endpoint is called the **vertex** of the angle.
- ❖ An angle separates a plane into three parts: the interior of the angle, the exterior of the angle, and the points on the side of the angle
- ❖ The **measure of an angle** is the smallest amount of rotation about the vertex from one ray to the other.
- ❖ **Degree** is the unit of measure of an angle and the tool used to measure a given angle is a **protractor**.
- ❖ **Kinds of Angles**
 - A **right angle** is an angle that measures 90° .
 - An **acute angle** is an angle whose measure is greater than 0° but less than 90°
 - An **obtuse angle** is an angle whose measure is greater than 90° but less than 180° .

CHECKING YOUR UNDERSTANDING

A. Fill in the blanks using *always*, *sometimes*, or *never*.

- 1) A point _____ occupies an area.
- 2) Two points are _____ collinear.
- 3) Three lines that intersect at exactly one point are _____ contained in one plane.
- 4) Given plane M and plane N, then their intersection is _____ a line.
- 5) If line p and line a intersect, then their intersection is _____ a point.
- 6) Two distinct lines _____ intersect in more than one point.
- 7) Three points are _____ collinear.
- 8) A line and a point on the line are _____ contained in one plane only.
- 9) Three points _____ determine a plane.
- 10) Two lines that intersect are _____ contained in two planes.

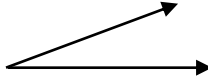
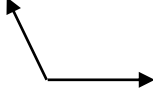
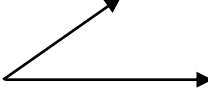
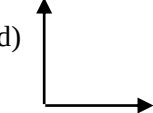
B. Tell whether the following statement is always true (AT), sometimes true (ST), or never true (NT).

- ____ 1) The measure between two points A and B with coordinates -2 and -6 respectively can be negative.
- ____ 2) Given two rays with the same endpoint, then they are opposite rays.
- ____ 3) Given two opposite rays, then they have the same endpoint.

- ____ 4) A line has two endpoints.
 ____ 5) $\overrightarrow{AB}$ is the same as $\overrightarrow{BA}$.
 ____ 6) If A is between C and T, then $\overrightarrow{AC}$ and $\overrightarrow{AT}$ are opposite rays.
 ____ 7) $\overrightarrow{BA}$ and $\overrightarrow{BC}$ are opposite rays, then B is between A and C.
 ____ 8) D, O and T are collinear points. O is between D and T and $DT = 2DO$, therefore $DO = OT$
 ____ 9) A ray consists of one point.
 ____ 10) $\overrightarrow{XY}$ and $\overrightarrow{XZ}$ are opposite rays, then X, Y and Z are collinear points.

POST-TEST

Directions: Read the questions carefully. Encircle the letter of the correct answer. If the answer is not found in the choices, write "E".

- 1) All of these are representation of a line EXCEPT:
 a) edge of a ruler b) string c) corner of a room d) wire
- 2) These are points that lie on the same line.
 a) collinear points b) non-collinear points c) coplanar points d) non-coplanar points
- For items 3 – 8, refer to the figure at the right.
- 3) Which is a set of collinear points?
 a) V, Y, & Z b) W, Y, & V c) X, Y, & U d) X, Y, & Z
- 4) What is the point of intersection of line XZ and line WU?
 a) Y b) W c) U d) Z
- 5) What point is in the interior of $\angle VYZ$?
 a) X b) U c) W d) Y
- 6) Which of the following is a right angle?
 a) $\angle VYU$ b) $\angle XYZ$ c) $\angle UYZ$ d) $\angle XYW$
- 7) Which of the following is an obtuse angle?
 a) $\angle WYZ$ b) $\angle UYZ$ c) $\angle XYV$ d) $\angle XYW$
- 8) Which of the following shows opposite rays?
 a) $\overrightarrow{YV}$ and $\overrightarrow{YZ}$ b) $\overrightarrow{UW}$ and $\overrightarrow{WU}$ c) $\overrightarrow{YZ}$ and $\overrightarrow{YX}$ d) $\overrightarrow{YZ}$ and $\overrightarrow{YU}$
- 9) The hands of a clock at 8:00 formed what kind of angle?
 a) Right Angle b) Obtuse Angle c) Acute Angle d) cannot be determined
- 10) Which of the following statements is NOT true?
 a) There are infinite number of points in a plane.
 b) Given two points, only one line can contain both points
 c) The endpoints of $\overleftrightarrow{XY}$ are X and Y.
 d) A line extends in opposite direction without end.
- 11) Which of the following has a definite length?
 a) ray b) line c) point d) line segment
- 12) Which of these angles is closest to 60° ?
 a)  b)  c)  d) 
- 13) How many distinct line segments can be formed in a line with 8 distinct points?
 a) 7 b) 14 c) 56 d) 28
- 14) Which of the following statement is always true?
 I. A line and a point not on the line are coplanar.
 II. Infinitely many lines can contain a given point.
 III. Given a line contained in a plane, only one line can be parallel to it.
 a) I and III b) I and II c) II and III d) I, II, III
- 15) Using the figure at the right, which should not be used in naming an angle?
 a) $\angle 2$ b) $\angle I$ c) $\angle MIK$ d) $\angle EIK$

