## 1.1-Geometry Essentials [Vocaloulary]

## Taryet 1- Demonstrate hnowledge of core definitions include: point line, seyment ray, plane,

 ang/e, etc.
## Vocaloulary

(space provided to draw and create the various geometric words)

Point: occupies no $\qquad$ or $\qquad$ -.

It is represented by a $\qquad$ and $\qquad$ such as A,
$B, C, D$, or $E$.
Line:can be defined by $\qquad$ it passes $\qquad$ .

Line segment: $\qquad$ of $a$ $\qquad$ It has two such as $C$ and $D$ and is written
$\qquad$ .

Ray: a $\qquad$ of a line that starts at a direction. and extends forever in a certain

Plane: ${ }^{\text {a }}$ $\qquad$ figure that
continues forever and can be defined by listing any $\qquad$ points on it which are not on a $\qquad$ .

## VOU TRYNOWI

1. Draw and label 3 points that are collinear.
2. Draw a line and name is 'n.'
3. What is $\overleftrightarrow{A B}$ ? Draw it.
(is $\overrightarrow{A B}$ ? Draw i.
4. Draw and label an example of a point.
5. Draw and label 3 points that are collinear. Identify a point, a line and a segment. Use proper notation.

Annotate Here
Other Vocab:
Postulate:
Statement that is accepted to be true without proof.
volume, space, location, dot, capital letter
two points, through
part, line, endpoints, $\overline{C D}$
portion, point
two dimensional, three, line

Collinear:
Three or more points on a straight line.

Angle: formed by $\qquad$ with the same endpoint called the $\qquad$ .

## Naming Angles

1) Call the angle by its vertex.
2) Use 3 points with the vertex in the middle

## Types of Angles

$0^{\circ}<$ Angle measure < $90^{\circ} \quad 90^{\circ}<$ Angle measure < $180^{\circ}$

Angle measure $=180^{\circ}$
Angle measure $=90^{\circ}$

## Angle Addition Postulate

If $R$ lies within $\angle Q T V$, then $m \angle Q T R+m \angle R T V=m \angle Q T V$

### 1.1 Day 2-Geometry Essentials [Gonstructions]

## Target 1 - Demonstrate hnowlenge of core definitions including: point, /ine, segment, ray, plane, angle, etc.

## Vocaloulary

Congruent: When 2 objects have the same $\qquad$ or $\qquad$

Eontructing a copy of a single line segment


Eontructing a a copy of an angle


## Annotate Here

Name these tools


How do you show congruency between:
A) segments?
B) angles

### 1.2Day 1-Lenyths of a Segments Using Eoordinates ann Seyement Addition Target 2 - Determine the lengith, midjoint, and ratios of segments

## Segment Addition Postulate

If $W$ is between $F$ and $X$ on a line segment

Draw the situation here , then __ $+\ldots=F X$.

## Example 1: Use segment addition

Find the length of $\overline{D C}$ ?


## Example 2: Use segment addition

Points $A, B, C$, and $D$ are collinear and positioned in that order. Find the length of $\overline{B D}$ lf $A B=x+11, C D=10, B D=x+24$, and $A C=x+16$.

## * VOU TRY NOWI

The end points of $\overline{A B}$ are at $(8,3)$ and $(8,10)$. One of the endpoints of $\overline{C D}$ is at $(2,4) . \overline{A B} \cong \overline{C D}$. $\overline{C D}$ is in the first and second quadrant and parallel to the $x$-axis. What is the other end point of $\overline{C D}$ ?


Segment Length us Segment Name


Segment Name

Segment Length
1.2 Day2-Midpoint and Distance Formula

Taryet 2 - Determine the length, midpoint, and ratios of segments


Example 1: Lenyths of segments when graphen diagonally
Find the length of segment $R T$ where $R(-1,0)$ and $(4,2)$.



Find the distance between $(2,-1)$ and $(5,5)$. Draw a diagram to confirm.

Midpoint Formula
$M=(\ldots) \quad$ Midpoint is the ___ of

> Example 3: Find the midpoint of the given segment

*Find an Endpoint:The midpoint of $\overline{J K}$ is $\mathrm{M}(6,1)$. One endpoint is $J(1,4)$. Find the coordinates of endpoint $K$.


What is the purpose of the subscript?

## Target 2 - Determine the length, midjoint, and ratios of segments

Example 1: Monel the situation and use fatios and proportions to find a partition
$B$ partitions (separates) a directed line segment $\overline{A C}$ into a ratio 3:2. What is $A B$ if $A C$ is 10 ?

## Example 2: Using the information helow, find WW.

$\frac{\overline{V W}}{U W}=\frac{3}{4}$


## Example 3:

$R$ is on $\overline{S T}$, and $\overline{S T}$ has a length of 63 . If the ratio is $2: 5$, how far is $R$ from $T$ ?

## *VOU TRY NOWI

1. Using the same directed line in example 3,
if $S T=90$, and $\frac{S R}{R T}=\frac{9}{1}$, how far is $R$ from $S$ ?

## Annotate Here

What is a ratio?
A comparison of $\qquad$ items

What are three ways to write a ratio?

What is a proportion?
2 $\qquad$ to each other

