

# 2.1

# Building Blocks of Geometry

## Taking Notes

2.1 - Building Blocks of Geometry 08/23/11

## Groupwork

Within your partner try to define the following:

- Point
- Line
- Plane

What is a definition?

- can be explained clearly
- can be concretely supported by an example in real life

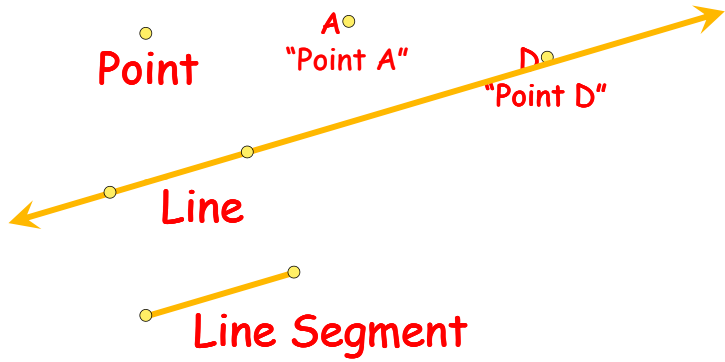
What do you call something that can't be defined?

## Undefined terms

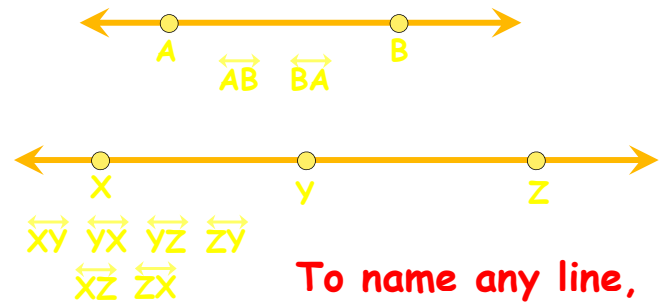
- Point
- Line
- Plane

## Definitions

<u>Definitions</u>	
Point	Undefined term that has no size, only location, and is considered to be zero-dimensional
Line	
Plane	



## Naming Lines and Line Segments



To name any line,  
pick any 2 points!

To name a line segment, it  
is very similar.  
Just Pick 2 points.



To name a line segment, it  
is very similar.  
Just Pick 2 points.



$\overline{US}$   $\overline{SU}$

To name a line segment, it  
is very similar.  
Just Pick 2 points.



To name a line segment, it  
is very similar.  
Just Pick 2 points.



$\overline{SA}$   $\overline{AS}$

To name a line segment, it is very similar.

Just Pick 2 points.



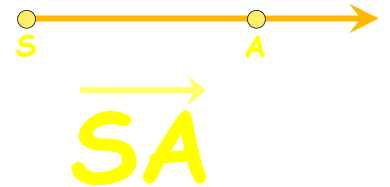
$\overline{UA}$     $\overline{AU}$

Writing the Measure of a Line Segment



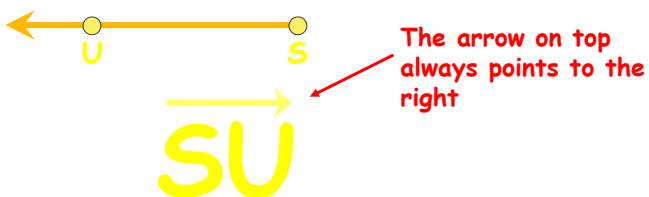
$XY = 2 \text{ ft}$   
 $m\overline{XY} = 2 \text{ ft}$

Rays



Rays

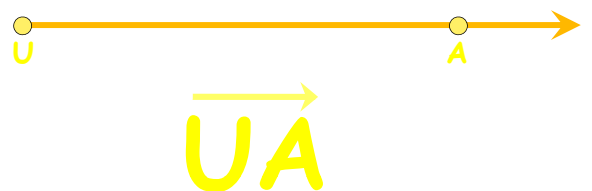
Rays



$\overrightarrow{SU}$

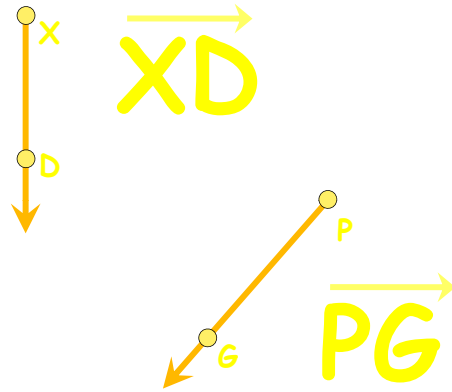
When you name a ray, you ALWAYS start with the endpoint on the left!

Rays



$\overrightarrow{UA}$

## Rays



## Different Direction Different Name



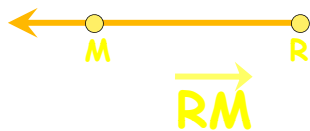
are totally different rays  
because they point in  
different directions!!!

## Different Direction Different Name



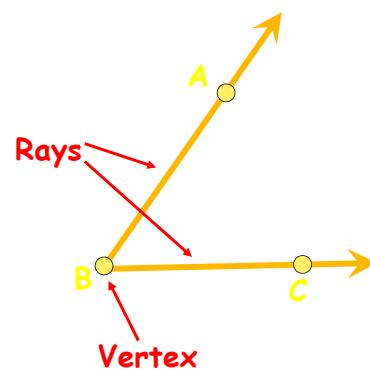
Points to the right.

## Different Direction Different Name

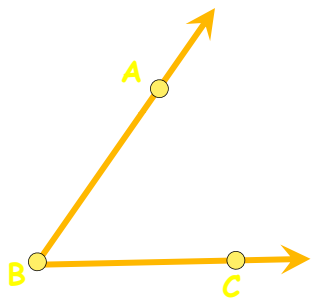


Points to the Left.

## Parts of an Angle

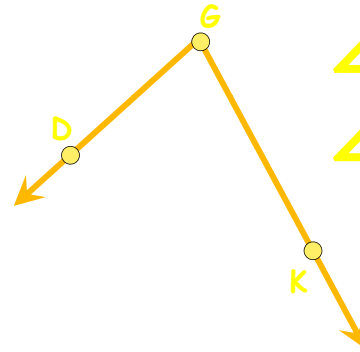


## Naming an Angle



$\angle ABC$   
 $\angle CBA$   
 $\angle B$

## Naming an Angle



$\angle DGK$   
 $\angle KGD$   
 $\angle G$

## Naming a Plane



## DEFINITIONS

**Collinear –**

**Coplanar –**

**Space –**

## DEFINITIONS

**Bisect –**

**Intersection –**

**Congruent –**

Congruent vs. Equal

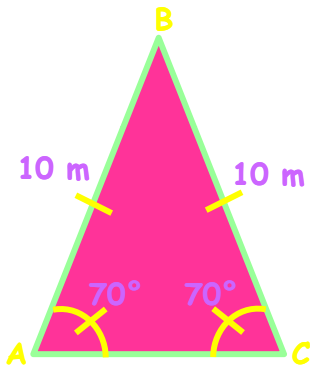
$\cong$

=

- Same size
- Needs a figure to refer to
- Does not use numbers

- Indicate with NUMBERS

## Example



$$\overline{AB} \cong \overline{CB}$$

$$\angle CAB \cong \angle ACB$$

$$AB = 10 \text{ m}$$

$$CB = 10 \text{ m}$$

$$m\angle CAB = 70^\circ$$

$$m\angle ACB = 70^\circ$$