Geometry

* 1. Identify Points, Lines, and Planes

# Undefined Terms

## Point A •

* What is it like?

Dot

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

No Dimension

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* How is it named?

Point A

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Line

* What is it like?

No Thickness

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

m

A B

Goes forever

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Straight

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1 Dimension

* How is it named?

m

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

line

two

Through any \_\_\_\_\_\_\_\_\_\_\_ points there is exactly one \_\_\_\_\_\_\_\_\_.

## Plane

* What is it like?

A

B

C

No Thickness

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Goes forever in both directions

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

noncollinear

three

2 Dimensions

* How is it named?

Plane

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Plane ABC

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

plane

Through any \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ points, there is exactly one \_\_\_\_\_\_\_\_\_\_\_\_.

Give two other names for

*E*

*C*

*B*

*A*

*ℓ*

*m*

*D*

, m

Give another name for plane

Plane ABE

Name three collinear points

A, B, C

Name four coplanar points

A, B, C, E

# Parts of a Line

## Segment

* What is it like?

B

A

Part of a line between two endpoints

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Does NOT go on forever

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* How is it named?

Named by endpoints

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Ray

* What is it like?

Part of a line starting at one endpoint and continuing forever

B

A

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Goes forever in one direction only

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* How is it named?

Named by endpoint followed by one other point

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

opposite rays.

A

B

C

If two rays have the same endpoint and go in opposite directions, they are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Give another name for

P

S

T

R

Q

Name all rays with endpoint Q

, , ,

Which of these rays are opposite rays?

and ; and

point

The intersection of two lines is a \_\_\_\_\_\_\_\_\_\_\_\_.

line

The intersection of two planes is a \_\_\_\_\_\_\_\_\_\_\_\_\_.

Sketch a plane and two intersecting lines that intersect the plane at separate points.

Sketch a plane and two intersecting lines that do not intersect the plane.

Sketch a plane and two intersecting lines that lie in the plane.

Assignment: 5 #1, 4-38 even, 44-58 even = 27 total