

Name: \_\_\_\_\_

Hour: \_\_\_\_\_

# Unit: Euclidean Geometry



## Lesson 1-6, 1-7: Undefined Terms

### Vocabulary

Undefined Terms in Euclidean Geometry:

1) \_\_\_\_\_ 2) \_\_\_\_\_ 3) \_\_\_\_\_

From these three undefined terms we build ALL other things in Euclidean Geometry...

Examples

We assume \_\_\_\_\_ to be true since they are SO basic, and we must always prove \_\_\_\_\_ to be true. In the next unit, we will work on how to prove statements are true.

## Lesson 1-8, 2-1, 2-4: Vocabulary

### Vocabulary

#### Distance Postulate

- a. Uniqueness Property: on a line, there is a \_\_\_\_\_  
\_\_\_\_\_
- b. Distance Formula: If two points on a line have coordinates  $x$  and  $y$ , the  
\_\_\_\_\_
- c. Additive Property: If  $B$  is on  $AC$ , then \_\_\_\_\_

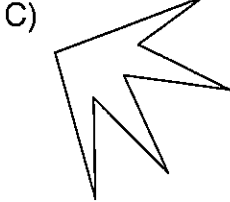
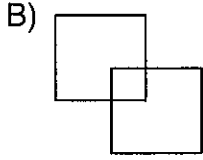
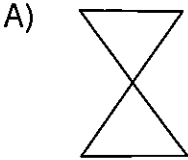
Example

**Symbols & Their Meanings**

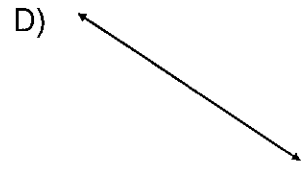
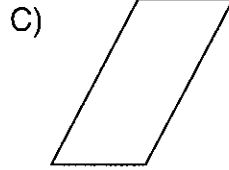
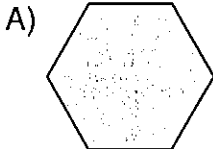
Symbols	Words	Picture
$\overline{AB}$		
$\overleftrightarrow{AB}$		
$\overrightarrow{AB}$		
$AB$		

**Practice**

1. Based on the definition of polygon, which of the following do you believe is a *polygon*?



2. For each of the following sets figures, label convex or nonconvex. If non, illustrate why.



3. Draw a convex heptagon.

4. Draw a nonconvex hexagon.

## Lesson 2-5: Unions/Intersections

### Vocabulary

Union: \_\_\_\_\_  
\_\_\_\_\_

Intersection: \_\_\_\_\_  
\_\_\_\_\_

	Words	Symbol	Example & Picture $X = \{1, 3, 5\}, Y = \{2, 3, 4\}, Z = \{5, 9\}$
Union			Ex: $X \cup Y$  Ex: $Y \cup Z$
Intersection			Ex: $X \cap Z$  Ex: $Y \cap Z$

### Practice

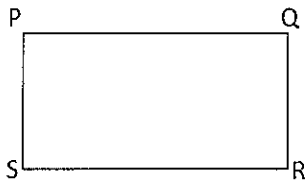
1. Let  $A = \{4, 6, 8\}$  and  $B = \{10, 6, 4\}$ .
  - a. Describe  $A \cup B$ .
  - b. Describe  $A \cap B$ .

2. Let  $C = \{x \geq 3\}$  and  $D = \{x \leq 7\}$ .

a. Describe the numbers in the set  $C \cup D$ .

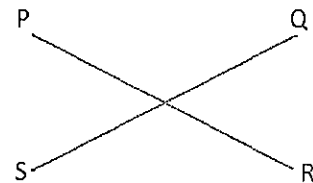
b. Describe the numbers in the set  $C \cap D$ .

3. Let  $E =$  rectangle PQRS



and

$F =$  line segments PR and QS.



a. Draw  $E \cup F$ .

b. Draw  $E \cap F$ .