

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

**LESSON**  
**7-1** **Interactive Study Guide**  
**Points, Lines, and Planes**

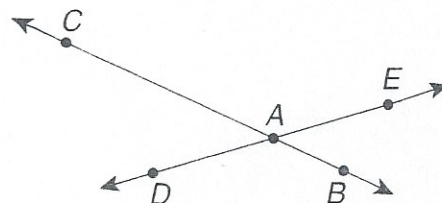
The building blocks of geometry are the **point**, **line**, and **plane**.  
A point is an exact location in space. A line is a set of points that extend in opposite direction without end. A plane is a set of points that form a flat surface in all directions, infinitely.

**Vocabulary**

- congruent figures
- congruent line segments
- line
- plane
- point
- ray

**Identify Points, Lines and Planes in a Drawing**

Use geometry notation to identify figures.



**A. points**

How many letters name a point? \_\_\_\_\_

Should the letter be capitalized? \_\_\_\_\_

How many points are shown in the drawing? \_\_\_\_\_

Name 3 points in the drawing. \_\_\_\_\_

**B. lines**

How many points name a line? \_\_\_\_\_

Name a line in the figure \_\_\_\_\_

**C. plane**

How many points name a plane? \_\_\_\_\_

Name a plane. \_\_\_\_\_

**D. rays**

When naming a ray what do you name first? \_\_\_\_\_

Name a ray in the above drawing. \_\_\_\_\_

**E. line segments**

What do you use to name a line segment? \_\_\_\_\_

Name a line segment. \_\_\_\_\_

**Congruent figures** have the same shape and size.

**Congruent line segments** have the same length.

**Identifying Congruent Line Segments of Given Measures**

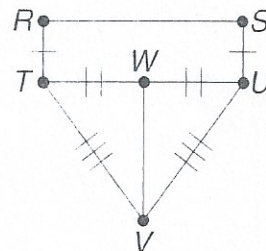
Identify the line segments that are congruent.

Is  $\overline{TV} \cong \overline{UV}$ ? \_\_\_\_\_

Is  $\overline{TV} \cong \overline{WV}$ ? \_\_\_\_\_

What is  $\overline{RT} \cong$  to? \_\_\_\_\_

What is  $\overline{TW} \cong$  to? \_\_\_\_\_



# LESSON 7-2 Interactive Study Guide Angles

A **vertex** is a common endpoint formed by two rays. A **right angle** measures exactly  $90^\circ$ , whereas an **acute angle** measures less than  $90^\circ$  and an **obtuse angle** measures greater than  $90^\circ$  but less than  $180^\circ$ . Angles are **complementary** if their measures add up to  $90^\circ$  and **supplementary** if their measures add up to  $180^\circ$ .

Vocabulary
acute angle
complementary angles
obtuse angle
right angle
supplementary angles
vertex

### Identifying Measures of Angles

Tell the measure of each angle.

A.  $\angle AFB$

What is the measure of  $\angle AFB$ ? \_\_\_\_\_

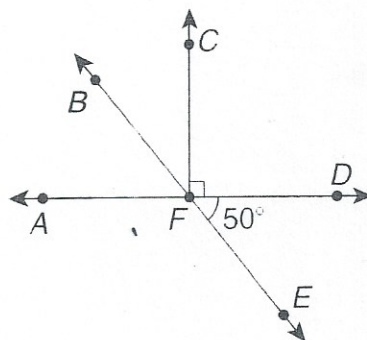
B.  $\angle CFD$

What is the measure of  $\angle CFD$ ? \_\_\_\_\_

C.  $\angle CFE$

What 2 angles make up  $\angle CFE$ ? \_\_\_\_\_

What is the measure of  $\angle CFE$ ? \_\_\_\_\_



### Classifying Angles

Tell whether the angle is acute, right, obtuse, or straight.

A.  $\angle BFC$

What does  $\angle BFC$  measure? \_\_\_\_\_ What kind of angle is  $\angle BFC$ ? \_\_\_\_\_

B.  $\angle AFD$

What does  $\angle AFD$  measure? \_\_\_\_\_ What kind of angle is  $\angle AFD$ ? \_\_\_\_\_

C.  $\angle CFD$

What does  $\angle CFD$  measure? \_\_\_\_\_ What kind of angle is  $\angle CFD$ ? \_\_\_\_\_

D.  $\angle AFE$

What does  $\angle AFE$  measure? \_\_\_\_\_ What kind of angle is  $\angle AFE$ ? \_\_\_\_\_

### Identifying Complementary and Supplementary Angles

A. Name two pairs of complementary angles.

What is the sum of the measures of complementary angles? \_\_\_\_\_

Name two pairs of complementary angles. \_\_\_\_\_, \_\_\_\_\_

B. Name two pairs of supplementary angles.

What is the sum of the measures of supplementary angles? \_\_\_\_\_

Name two pairs of supplementary angles. \_\_\_\_\_, \_\_\_\_\_