Name _____ Date _____

CHAPTER 1

Parents as Partners

For use with Chapter 1

Chapter Overview **One way you can help your student succeed in Chapter 1 is by discussing the lesson goals in the chart below. When a lesson is completed, ask your student the following questions. "What were the goals of the lesson? What new words and formulas did you learn? How can you apply the ideas of the lesson to your life?"**

Lesson Title	Lesson Goals	Key Applications
1.1: Identify Points, Lines, and Planes	Name and sketch geometric figures.	• Surveying • Perspective Drawing
1.2: Use Segments and Congruence	Use segment postulates to identify congruent segments.	• Maps • Science • Model Airplanes
1.3: Use Midpoint and Distance Formulas	Find lengths of segments in the coordinate plane.	• Skateboard • Windmill • Archaeology
1.4: Measure and Classify Angles	Name, measure, and classify angles.	• Trapeze • Sculpture • Construction
1.5: Describe Angle Pair Relationships	Use special angle relationships to find angle measures.	• Sports • Architecture • Shadows
1.6: Classify Polygons	Classify polygons.	• Architecture • Signs
1.7: Find Perimeter, Circumference, and Area	Find dimensions of polygons.	• Basketball • Teampatch • Skating Rink

Big Ideas for Chapter 1

In Chapter 1, you will apply the big ideas listed in the Chapter Opener (see page 1) and reviewed in the Chapter Summary (see page 59).

1. Describing geometric figures
2. Measuring geometric figures
3. Understanding equality and congruence

Name _____ Date _____

CHAPTER SUPPORT

CHAPTER 1

Parents as Partners *continued*

For use with Chapter 1

Key Ideas Your student can demonstrate understanding of key concepts by working through the following exercises with you.

Lesson	Exercise
1.1	Give an example of the intersection of two planes in a room in your house.
1.2	Plot the points $P(0, 4)$, $Q(5, 4)$, $R(1, 1)$, and $S(1, -6)$ in a coordinate plane. Then determine whether $\overline{PQ} \cong \overline{RS}$.
1.3	The endpoints of $\overline{CD}$ are $C(3, 9)$ and $D(5, 1)$. Find the coordinates of the midpoint M.
1.4	Think about the angle between the hands of a clock at 10:00. Is the angle *acute*, *right*, *obtuse*, or *straight*? What about at 7:00?
1.5	Main Street in a certain town is straight. Water Street dead ends into Main Street so the angle on one corner is twice the angle on the other corner. Find the angles formed by Main and Water Street.
1.6	The lengths (in centimeters) of two sides a regular hexagon are represented by the expressions $2x - 5$ and $x + 7$. Find the length of the sides of the hexagon.
1.7	The circular area around a flag pole has a diameter of 12 feet. A landscaper charges \$2 a square foot to establish a lawn. How much would it cost to establish a lawn around the flag pole? Use 3.14 for π.

Home Involvement Activity

Directions Measure the dimensions of a room in your home. Find the area. Find a type of carpet you like and find out how much the carpet costs per square foot. Not including labor for installation, how much would it cost to carpet the room?

Answers

1.1: *Sample answer:* where the floor and one of the walls meet **1.2:** $\overline{PQ} \ncong \overline{RS}$ **1.3:** $M(4, 5)$ **1.4:** acute; obtuse **1.5:** 60° and 120° **1.6:** 12 cm **1.7:** \$226.08