In this lesson you will:
- solve problems that require visual thinking
- draw diagrams to help you solve problems

A drawing often conveys information more quickly than a long written description. People in many occupations use drawings and sketches to communicate ideas. Architects create blueprints. Composers create musical scores. Choreographers visualize and map out sequences of dance steps. Basketball coaches design plays. Interior designers—well, you get the picture.

Visualization skills are extremely important in geometry. By drawing diagrams, you apply visual thinking to problem solving. Let's look at some examples that show how to use visual thinking to solve word problems.

•Example 1: Harold and Dina are standing on a flat, dry field reading their treasure map. Harold is standing at one of the features marked on the map, a gnarled tree stump, and Dina is standing atop a large black boulder. The map shows that the treasure is buried 60 meters from the tree stump and 40 meters from the large black boulder. Harold and Dina are standing 80 meters apart. What is the locus of points where the treasure might be buried?

(*locus: the set of all points that _____ some given conditions)

A diagram can also help organize information to help make sense of difficult concepts. A Venn diagram represents larger groups that contain smaller groups as circles within circles, or ovals within ovals. For example, a larger circle for "high school students" would contain a smaller circle for "sophomores." Overlapping circles show that it is possible to belong to two different groups at the same time, such as "sophomores" and "geometry students."

•Example 2: Create a Venn diagram to show the relationship among parallelograms, rhombuses, rectangles, and squares.

⇒**ASSIGNMENT**: _____