Name: _____   Date: _____

Chapter 10 Math Link Introduction

This worksheet will help you with the Math Link introduction on page 377. Work with a partner to complete the activity and questions.

1. On tracing paper, construct a circle that is 10 cm across. Use a protractor or compass to ensure the circle is perfectly round.

2. a) Fold the paper so that the circle is folded exactly in half. Then, reopen the tracing paper. Along the fold, draw a line segment that has both endpoints on the circle. Mark the endpoints with a dot.
   b) What is the mathematical term for this line segment?

3. a) Fold the circle in half again, making a different crease.
   b) What is the mathematical term for the intersection of the two line segments created?

4. a) Estimate the measure of each of the four angles you created.
   b) Measure the four angles with a protractor. How did your estimates compare?
   c) There should be two pairs of angles that are the same. Each of these two pairs should add up to 180°. What is the sum of these four central angles?

5. An environmental club is considering using the logo shown on page 377.
   a) Measure the length of the sides of the triangle in the picture. Are these equal?
   b) What kind of triangle is used in the diagram? Explain your reasoning.
   c) How could you create this logo? What tools could you use? Write a quick set of instructions explaining exactly how you would create this logo.

6. a) Copy your circle from #1. Try to draw a triangle, a square, a pentagon, and a hexagon that touch the circle. All the sides (edges) of the figure or the vertices (points) have to touch the circle. They can touch inside or outside the circle.
   b) What difficulties did you have? Describe any challenges you experienced making these shapes touch each other.

7. With your partner, brainstorm some businesses that have circles in their advertisements. Name three and draw their logos.