LESSON 9.5

NAME _____ DATE _____

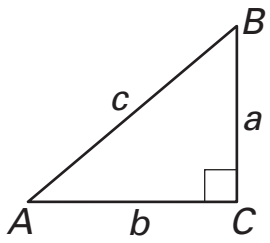
Available as a transparency

Activity Lesson Opener

For use with pages 558–566

SET UP: Work in a group.
You will need: • ruler • protractor • calculator

1. Each member of the group draws and labels a triangle as shown at the right. Choose a measure for $\angle A$, between 20° and 70°, which everyone in the group uses. Measure the sides of your triangle to the nearest millimeter. Are the triangles in your group congruent? Are they similar?



2. As a group, complete the table below by using measurements from your triangles. (Use a calculator to find the ratios, rounding to the nearest thousandth.)

Student's Name	a	b	c	$\frac{a}{c}$	$\frac{b}{c}$	$\frac{a}{b}$

3. Analyze your table. What do you notice about the column of values for each ratio? Why should the values be equal? Does the value of a ratio depend on the particular triangle measured?

4. Compare your results with other groups in the class. Does the value of a ratio depend on the measure of $\angle A$? Explain.