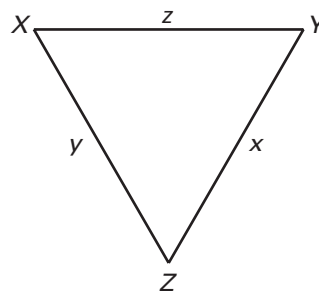


Activity Lesson Opener

For use with pages 295–301

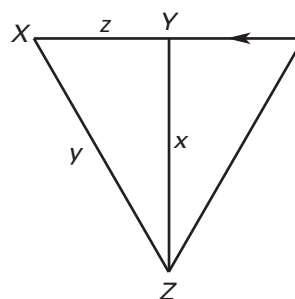
SET UP: Work in a group of three.**YOU WILL NEED: • tape • floor space**

1. Place tape on the floor to form a large equilateral triangle. Each side should be at least 8 feet long. Label the vertices of the triangle X , Y , and Z and the lengths of the opposite sides x , y , and z .



At each vertex of the triangle, a student stands with arms extended, pointing toward the other vertices. What is the measure of each angle formed by a pair of arms?

2. Now the person at Y walks along the tape towards X and stops at a new point Y , about halfway to X . Add a piece of tape to form a new $\triangle XYZ$. Look at the tape to see which sides changed in length. Look at the extended arms to see which angles changed in measure. Identify the longest side and the largest angle of $\triangle XYZ$. Identify the shortest side and the smallest angle of $\triangle XYZ$.



3. Form other scalene triangles by having X and Z move. Each time a new $\triangle XYZ$ is formed, make angles with your arms to identify the smallest and largest angles of the triangle. Use tape to identify the shortest and longest sides of the triangle. To summarize, write a statement about the relationship between the smallest angle and the shortest side and about the relationship between the largest angle and the longest side of a scalene triangle. Draw a diagram that shows these relationships.