

Exploring Properties of a Midsegment

Materials Needed: Pencil
Several Sheets of Patty Paper

Procedures:

1. Draw a large scalene triangle on a sheet of patty paper.
2. Locate the midpoint of two of the sides by folding the patty paper.
3. Draw the line between the two midpoints. This line is called a Midsegment. Why do you think this is a good name for this segment?
4. Use another sheet of patty paper to compare the length of this midsegment to the sides of the scalene triangle. What is your conclusion?
5. Use another sheet of patty paper to compare the angles of the triangle to the angles formed by the midsegment and the sides of the triangle. What conclusion can you make?
6. Because of your conclusion in step 5, what can you conclude about the midsegment and one of the sides of the triangle? Why can you make this conclusion?

Extension:

1. Create all the midsegments for the scalene triangle. Use another sheet of patty paper to study how the lengths of the midsegments relate to one side of the triangle. Use colored pencils to show the relationships.
2. Use another sheet of patty paper to study the various segments. How many congruent segments exist. Color code them to show which segments are congruent.
3. Use another sheet of patty paper to study the measure of each of the angles in the divided triangle. How many angles are equal? What name could be used to describe all the triangles in the divided triangle?