Name _____ Date _____ Class _____

LESSON 5-5

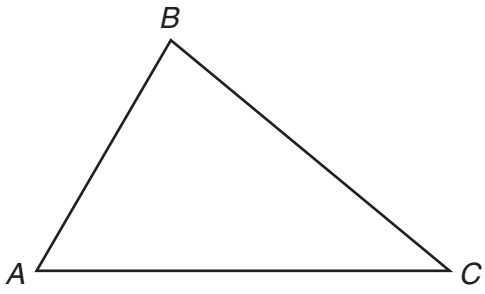
Geometry Lab Recording Sheet p. 331

Explore Triangle Inequalities

Try This

Activity 1

1. Draw a large scalene triangle. Label the vertices *A*, *B*, and *C*.



2. Measure the sides and the angles. Copy the table below and record the measures in the first row.

Triangle	*BC*	*AC*	*AB*	m∠*A*	m∠*B*	m∠*C*
1						
2						
3						
4						

Try This

1. In the table, draw a circle around the longest side length, and draw a circle at the greatest angle measure of △*ABC*. Draw a square around the shortest side length, and draw a square around the least angle measure.

2. **Make a Conjecture** Where is the longest side in relation to the largest angle?

_____

Where is the shortest side in relation to the smallest angle?

_____

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LESSON 5-5

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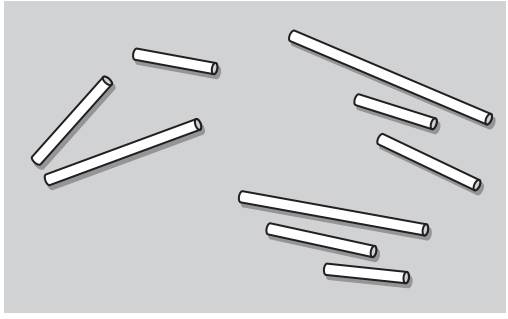
Explore Triangle Inequalities continued

3. Draw three more scalene triangles and record the measures in the table.

Does your conjecture hold? _____

Activity 2

1. Cut three sets of straws to the following lengths.



3 inches, 4 inches, 6 inches

3 inches, 4 inches, 7 inches

3 inches, 4 inches, 8 inches

2. Try to make a triangle with each set of straws.

Try This

4. Which sets of chenille stems make a triangle? _____

5. Make a Conjecture For each set of chenille stems, compare the sum of any two lengths with the third length. What is the relationship?

_____

_____

_____

_____

_____

_____

6. Select a different set of three lengths and test your conjecture. Are you correct?

_____

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