

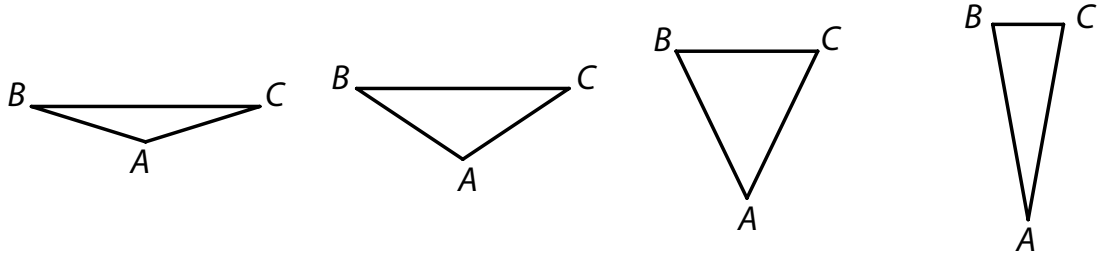
Name: _____

Date: _____

Conceptual Task: String Games

Shaylie is playing with a piece of string. She ties the ends together, so that the string makes a loop. The overall length of the loop is 15 inches. She notices that she can make triangles out of the loop by pinning it in three places. Call these locations A , B , and C .

SMP	
1 ✓	2
3 ✓	4
5 ✓	6
7 ✓	8

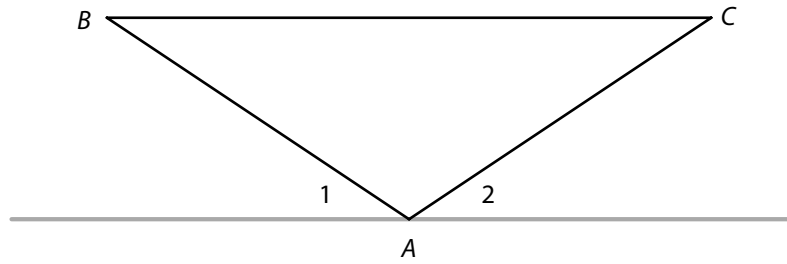


Perimeter $\triangle ABC = 15$ inches

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- f. Consider the diagram of $\triangle ABC$, where a line parallel to \overline{BC} has been drawn through A . Identify the parallel lines and the transversals.



- g. Consider the diagram from part f. What is the relationship between $\angle B$ and $\angle 1$? Between $\angle C$ and $\angle 2$? How do you know?

- h. What does $m\angle A + m\angle 1 + m\angle 2$ equal? Why? Defend your answer.

- i. Does this agree with the sum $m\angle A + m\angle B + m\angle C$? Why? Defend your answer.