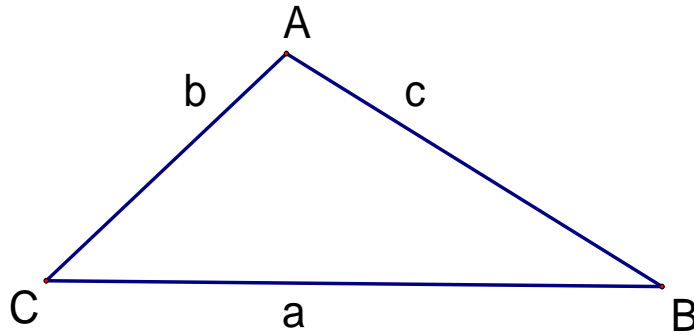


The sum of the lengths of any two sides of a triangle must be greater than the length of the third side.



$$a + b > c$$

$$b + c > a$$

$$a + c > b$$

1. Are these triangles? Draw and label each example. Verify the triangle inequality for all cases.

a) $a = 8 \text{ cm}, b = 7 \text{ cm}, c = 4 \text{ cm}$

b) $a = 8 \text{ cm}, b = 4 \text{ cm}, c = 3 \text{ cm}$

2. In $\triangle ABC$, suppose $a = 8 \text{ cm}$ and $b = 9 \text{ cm}$, then what is the range of possible values for side c ?