## Standard Labeling

Standard labeling is an agreement among mathematicians on how we label sides, vertices, and angles of triangles. Every triangle has three of the following three components:

## 1. vertices

Points are usually denoted by uppercase letters. In case of triangles, we often use A, B, and C.

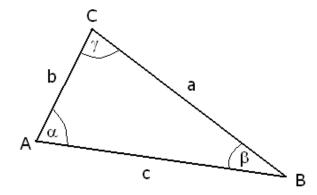
## 2. angles

Angles are usually denoted by lowercase Greek letters. In case of triangles, we often use  $\alpha$  (alpha),  $\beta$  (beta), and  $\gamma$  (gamma).

## 3. sides

Lines and line segments are usually denoted by lowercase letters. In case of triangles, we often use a, b, and c.

In case of standard labeling, we automatically associate sides, vertices, and angles. A vertex is associated with the angle located at that vertex. These two are associated with the side opposite these. For example, angle  $\alpha$  is always assumed to be located at point A, and side a is always assumed to be the side opposite to point A and angle  $\alpha$ . Point B, angle  $\beta$ , and side b are similarly grouped. The figure below summerizes standard labeling.



Unless otherwise indicated, we should always assume standard labeling when presented with data, using these letters.

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