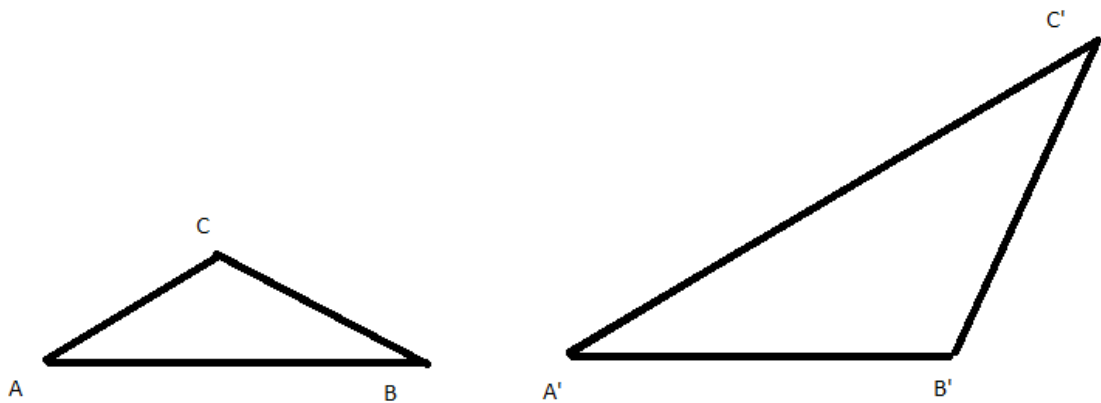## Conditions

How do I solve a triangle with only one angle and one side given? it is not a right triangle. is that even possible?

Solution

Dear customer, your doubts were not baseless. We can solve the triangle only when we know enough data to fix the one concrete triangle from a set of all possible triangles on a plane. There are three features of the triangle equality - on three sides, two angles and the side between them and the two angles and the side. This features mean that one of these data given fixes one concrete triangle, hence, it can be solved.

So, your data is not enough. I can provide an example of two triangles whose have equal sides and one angle, but they aren't equal:

As we can see, angle A = angle A', AB=A'B' but the triangles are not equal. This means that one angle and one side gives us not enough information to solve the triangle.