Segments that cannot make a triangle

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Theorem 7.1. Show how to construct 3 segments which are not congruent to the sides of any triangle.

Proof. Construct segment AC. Place point B anywhere on line segment AC. Then we have three segments AC, AB, and BC. Euclid's I.22 states two sides taken together in any matter are greater than the remaining side in a triangle. Because AC is the sum of segment AB and BC, then these three segments will not work as sides of a triangle because AB and BC equal AC but is not greater than AC. Refereed by Nicole Hegewald.

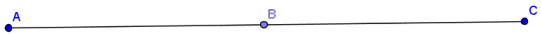

Figure 1: Segment AC with point B located anywhere on the segment

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