

## Triangles by Don Phillips

If you are taking a course in trigonometry or pre-calculus and studying triangles, this program will solve all your triangle problems, including the ambiguous case where there are 0, 1 or 2 solutions. There are 5 configurations of problems: SSS, ASA, SAA, SAS, SSA and AAA. Under each configuration, except for SSS and AAA, you must choose the order of inputs based on your specific problem. For instance, under ASA you have 3 options: AbC, AcB, or BaC. (Upper case letters are angles and lower case letters are sides. Remember, side a is opposite angle A, and so forth.) The ambiguous case is option SSA. The second triangle solution, if there is one, will be automatically displayed after the first one. If you have any questions, I can be reached at [don.phillips@gmail.com](mailto:don.phillips@gmail.com).

Note: For the AAA case, there can be no definite sides. However, it is possible to compute sides that are proportionate to the measure of the angles. I designate the smallest side as 1 and the other two proportionate to 1.