

SAA. txt

```
% SAA
% This program solves any triangle, if we know the
% one side and the two consecutive angles.
% It computes three angles and traverses
% the triangle (clock or counter clockwise depending
% on the order in which you entered the three side
% values) and outputs SIDE ANGLE SIDE ANGLE SIDE ANGLE.
% By L. Linares 2011
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%
% VERY IMPORTANT: To type this program on a regular
% text file, I had to replace some HP50 keys by
% certain strings. So ...
% Where I wrote          you type
%      *                  [multiply key]
%      ACOS               [WHITE SHIFT] COS
%      ^                  [y to the x key]
%      SQRT               press square root key (*)
%      ->TAG              [WHITE SHIFT] PRG/TYPE/->TAG
%      ->                 [RED SHIFT] [zero key]
%      (*) Do NOT type the letters SQRT ... it won't work!
% Usage: Enter the three side lengths on the stack
%      3: S1
%      2: A1(in degrees)
%      1: A2(in degrees)
%      Then run the program!
%
% VERY IMPORTANT: Store this program as 'SAA',
% because the other four programs in this series
% will "call" this one by that name!
% This program is provided on a "as is" basis, for
% reference ONLY, and no warranty of its accuracy or
% correctness is made. If you use it, you use it at your
% own risk.
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<< -17 FS?
-> S1 A1 A2 X

<<
  IF 'X==1' THEN DEG END
  'S1/SIN(A2)*SIN(A1)' EVAL
  '180-A1-A2' EVAL SIN
  'S1/SIN(A2)' EVAL * s1
-> S3 S2 S1

<< S1 S2 S3 'SSS' EVAL >>
  IF 'X==1' THEN RAD END

>>

>>
```