Solving Triangles Flow Chart

The triangle is…..

Right

Given…

Two sides, to find the third do Pythagorean Theorem.

One side, to find the second do SOH-CAH-TOA

Two angles, to find the third Subtract from 180°

One angle, to find the third do second Inverse SOH-CAH-TOA

Oblique (Not Right)

Case…

ASS

AAS, ASA

Do Law of Sines

SSS, SAS

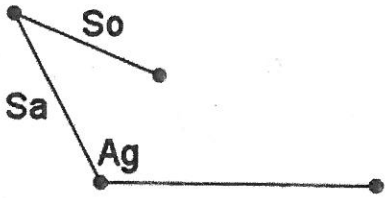
Do Law of Cosines

The given angle is…

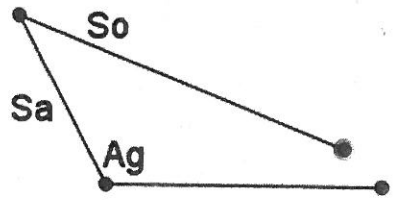
KEY: Ag = Given Angle, So = Side Opposite Given Angle, Sa = Side Adjacent Given Angle, H = Height

Obtuse

Compare So to Sa



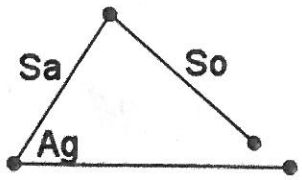
I) If So < Sa, then there are 0 possible triangles.



II) If So > Sa, then there is 1 possible triangle.

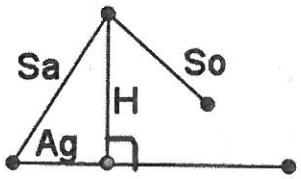
Acute

Compare So to Sa



I) If So > Sa, there is 1 possible triangle

II) If So < Sa, find the height and there are three cases.



Compare So to H

If So < H, there are 0 possible triangles.

If So = H, there is 1 right triangle.

If So > H, there are 2 possible triangles.

For Ambiguous Case ASS, use Law of Sines to find missing sides and angles.