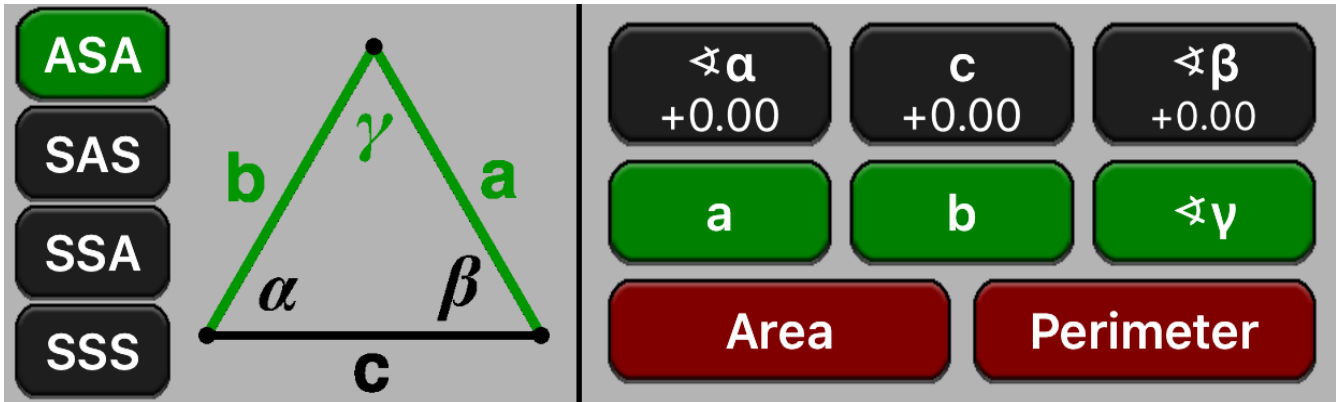


Triangle Solution Menu

This menu allows you to resolve a triangle knowing 3 values where, at least one, must be the length of a side. To show the menu, touch the “**Math**” button in the main menu and select the “**TRIAG**” option.



Mode	Button	Description
[ASA]	[∠α]	Stores angle 'α'
[SAS]	[c]	Stores side 'c'
[SSA]	[∠β]	Stores angle 'β'
[SSS]	[a]	Calculates side 'a'
	[b]	Calculates side 'b'
	[∠γ]	Calculates angle 'γ'.
[ASA]	[a]	Stores side 'a'
[SAS]	[∠γ]	Stores angle 'γ'
[SSA]	[b]	Stores side 'b'
[SSS]	[∠α]	Calculates angle 'α'
	[c]	Calculates side 'c'
	[∠β]	Calculates angle 'β'.

[ASA]	[b]	Stores side 'b'
[SAS]	[c]	Stores side 'c'
[SSA]	[*β]	Stores angle 'β'
[SSS]	[a]	Calculates side 'a'
	[*α]	Calculates angle 'α'
	[*γ]	Calculates angle 'γ'.
[ASA]	[a]	Stores side 'a'
[SAS]	[b]	Stores side 'b'
[SSA]	[c]	Stores side 'c'
[SSS]	[*α]	Calculates angle 'α'
	[*β]	Calculates angle 'β'
	[*γ]	Calculates angle 'γ'.
[Area]		Calculates the Area of the triangle with the current 'a', 'b' and 'c' values.
[Perimeter]		Calculates the Area of the triangle with the current 'a', 'b' and 'c' values.

Example: (SSS)

In a triangle ABC, the sides are 6 cm, 10 cm and 14 cm. Show that the triangle is obtuse angled with the obtuse angle equal to 120° .

Solution : (DEG angle mode)

Keystrokes	Description
[SSS]	Set 'SSS' calculation mode.
type 6 [a]	Store the 'a' side length.
type 10 [b]	Store the 'b' side length.
type 14 [c]	Store the 'c' side length.

Keystrokes	Description
[* α]	Calculates angle 'α'. * α = 21.79
[* β]	Calculates angle 'β'. * β = 38.21
[* γ]	Calculates angle 'γ'. * γ = 120.00

Example: (SAS)

Two sides of a triangle are $\sqrt{3} - 1$ and $\sqrt{3} + 1$ units and their included angle is 60° . Solve the triangle. What is the triangle's area and perimeter?

Solution : (DEG angle mode)

Keystrokes	Description
[SAS]	Set 'SSS' calculation mode.
3 [↔] [√x] [-] 1 [a] 60 [*γ]	Store the 'a' side length. Store the 'γ' angle.
3 [↔] [√x] [+] 1 [b]	Store the 'b' side length.
[* α] [c] [* β]	Calculates angle 'α'. * α = 15.00 Calculates side 'c'. c = 2.45 Calculates angle 'β'. * β = 105.00
[Area]	Calculate the Area. AREA = 0.87
[Perimeter]	Calculate the Perimeter. PERIM = 5.91