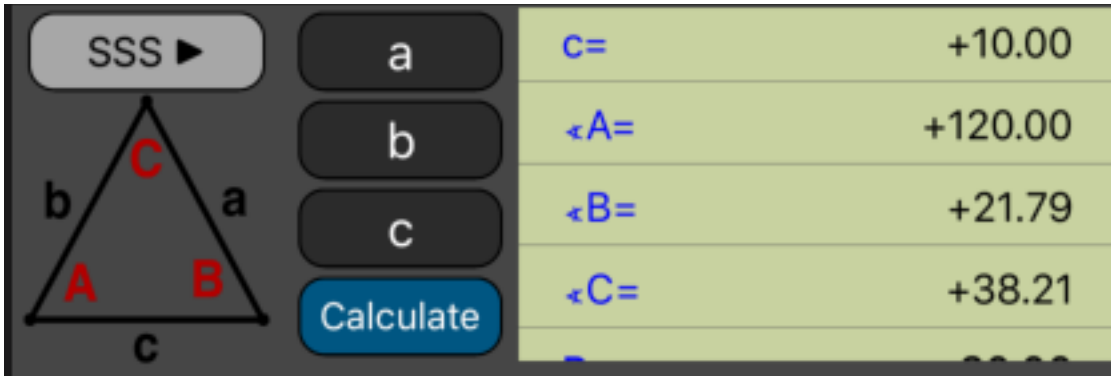


# Plane Triangle Solution Menu

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 “**SCI ▶**” button in the main menu, and select the “**Triangle Solution**” option.



Mode	AAS	ASA	SAS	SSA	SSS
Inputs	[ b ] [ ∗A ] [ ∗B ]	[ c ] [ ∗A ] [ ∗B ]	[ a ] [ b ] [ ∗C ]	[ b ] [ c ] [ ∗B ]	[ a ] [ b ] [ c ]
[Calculate] Outputs	a c ∗C	a b ∗C	c ∗A ∗B	a ∗A ∗C	∗A ∗B ∗C
<b>Perimeter</b> and <b>Area</b> of the triangle.					

**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  $120^\circ$ .

**Solution : ( DEG angle mode)**

Keystrokes	Description
[ SSS ]	Set 'SSS' calculation mode.
14 [ a ] 6 [ b ] 10 [ c ]	Store the 'a' side length. Store the 'b' side length. Store the 'c' side length.
[Calculate]	Calculates the triangle and updates the result list: <b>a = 14.00</b> <b>b = 6.00</b> <b>c = 10.00</b> $\sphericalangle$ <b>A = 120.00</b> $\sphericalangle$ <b>B = 21.79</b> $\sphericalangle$ <b>C = 38.21</b> <b>Per. = 30.00</b> <b>Area = 25.98</b>
Touch any of the list table row to input the value in the calculator	

### Example: (SAS)

Two sides of a triangle are 5 and 8 units and their included angle is  $60^\circ$ . Solve the triangle and, What is the triangle's area and perimeter?

### Solution : ( DEG angle mode)

Keystrokes	Description
[ SAS ]	Set 'SSS' calculation mode.
5 [ a ] 8 [ b ] 60 [ $\angle$ C ]	Store the 'a' side length. Store the 'b' side length. Store the 'C' angle.
[Calculate]	Calculates the triangle and updates the result list: <b>a = 5.00</b> <b>b = 8.00</b> <b>c = 7.00</b> <b><math>\angle</math>A = 38.21</b> <b><math>\angle</math>B = 81.79</b> <b><math>\angle</math>C = 60.00</b> <b>Per. = 20.00</b> <b>Area = 17.32</b>
Touch any of the list table row to input the value in the calculator	