



Many math problems have multiple steps in their solution. When these steps are always the same, an eActivity can be created to quickly solve such problems.

In this example, Herons method to find the area of a triangle when three side lengths are known is used.


Start a new eActivity and enter the text shown on the first line and tap EXE.

Next we will store (using \rightarrow) the numbers 3, 4 and 5 into the variables a , b and c , where these are the side lengths of the triangle.

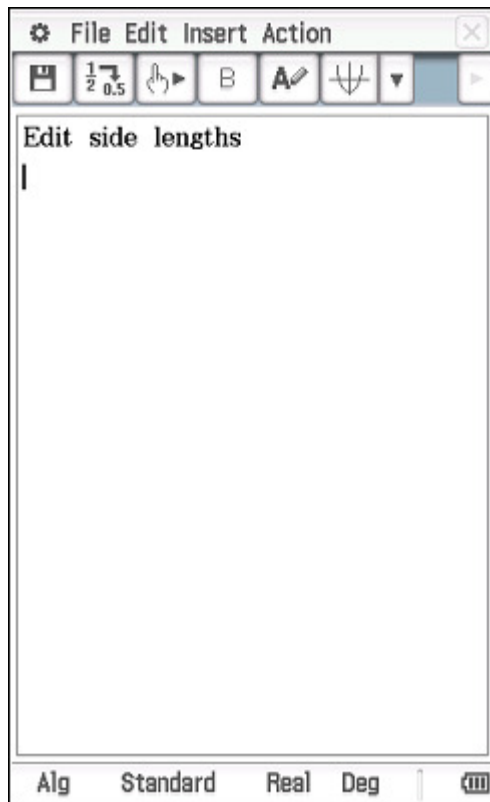
Tap the  icon to change from text to math mode and complete the next line and tap **EXE**.

Tap the  icon to change back to text mode.

Enter 'Semi-perimeter, s ' and tap **EXE**.

Tap the  icon to change to math mode.

Enter the expression shown and tap **EXE**.

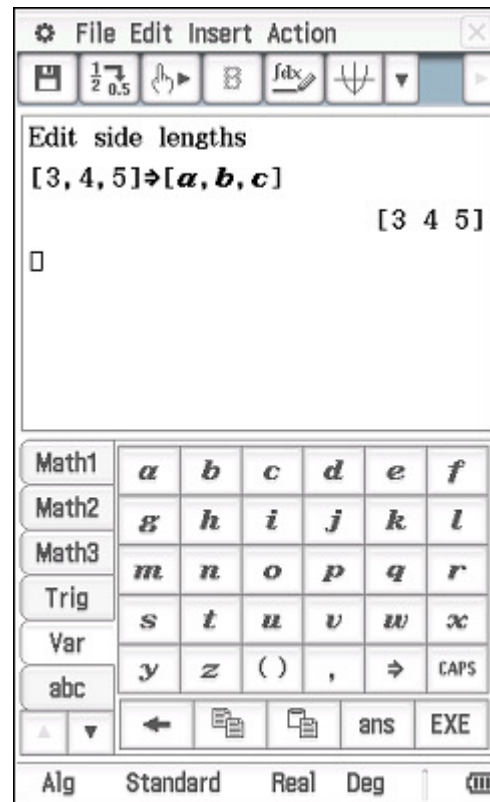


File Edit Insert Action

Edit side lengths

|

Alg Standard Real Deg



File Edit Insert Action

Edit side lengths

[3, 4, 5] → [a, b, c]

[3 4 5]

Math1 a b c d e f

Math2 g h i j k l

Math3 m n o p q r

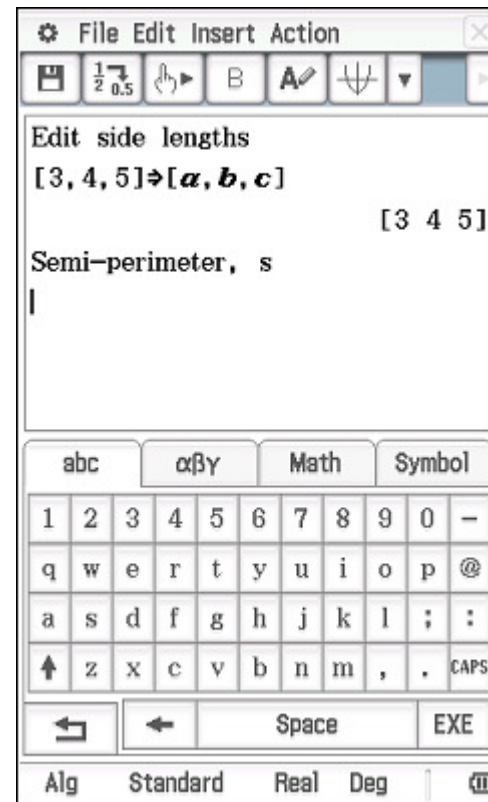
Trig s t u v w x

Var y z () , → CAPS

abc

← → ans EXE

Alg Standard Real Deg



File Edit Insert Action

Edit side lengths

[3, 4, 5] → [a, b, c]

[3 4 5]

Semi-perimeter, s

|

abc αβγ Math Symbol

1 2 3 4 5 6 7 8 9 0 -

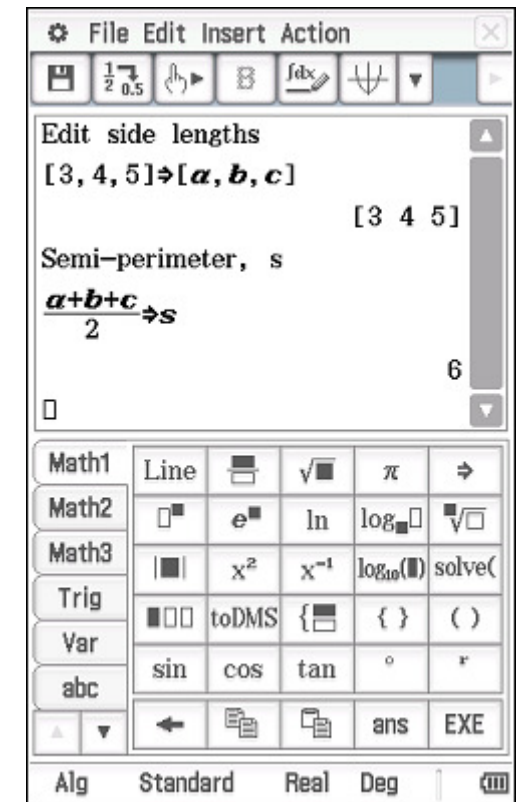
q w e r t y u i o p @

a s d f g h j k l ; :

↑ z x c v b n m , . CAPS

← → Space EXE

Alg Standard Real Deg



File Edit Insert Action

Edit side lengths

[3, 4, 5] → [a, b, c]

[3 4 5]

Semi-perimeter, s

$\frac{a+b+c}{2} \rightarrow s$

6

Math1 Line $\frac{\square}{\square}$ $\sqrt{\square}$ π \rightarrow

Math2 \square^{\square} e^{\square} \ln \log_{\square} $\sqrt{\square}$

Math3 $|\square|$ x^2 x^{-1} $\log_{10}(\square)$ $\text{solve}(\square)$

Trig $\square \square$ toDMS $\{\square\}$ $\{\}$ (\square)


Var \square \square \square \square \square \square

abc sin cos tan $^{\circ}$ $^{\circ}$

← → ans EXE

Alg Standard Real Deg

Repeat the previous steps to calculate the area.

Take care to use the  icon to set up each line for either text or math.

Tap **File, Save As.**

Enter a suitable name and tap **Save.**

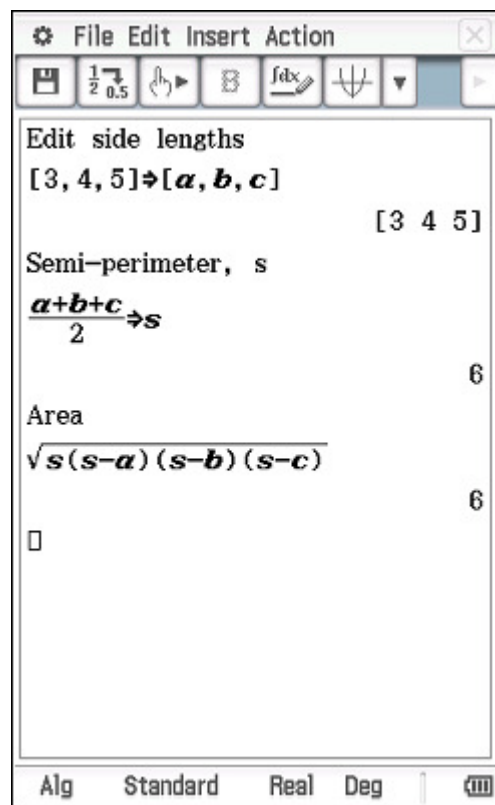
Return to the top of the eActivity and change the three side lengths.

In the example shown we have chosen 6, 8 and 13. Tap **EXE** while still on this line.

The semi-perimeter and area are both re-calculated.

Try some other values that might represent the side lengths of a triangle.

After tapping **EXE** at the top of an eActivity, Classpad 'cascades' down the screen, updating intermediate math results and ignoring text lines.



File Edit Insert Action

Edit side lengths
[3, 4, 5] ⇒ [a, b, c]

Semi-perimeter, s
 $\frac{a+b+c}{2} \Rightarrow s$

Area
 $\sqrt{s(s-a)(s-b)(s-c)}$

6
6

Alg Standard Real Deg



eActivity

File All Search View

\work

heron

temp

heron

Save Cancel

abc

1 2 3 4 5 6 7 8 9 0 -

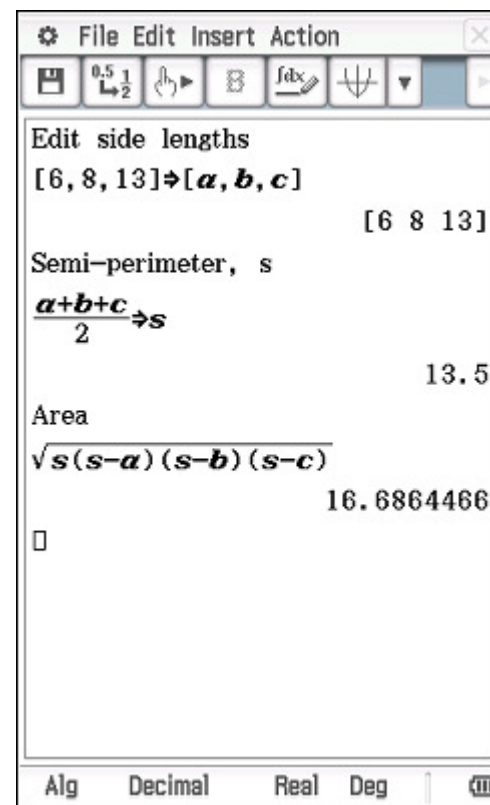
q w e r t y u i o p @

a s d f g h j k l ; :

↑ z x c v b n m , . CAPS

← Space EXE

Alg Standard Real Deg



File Edit Insert Action

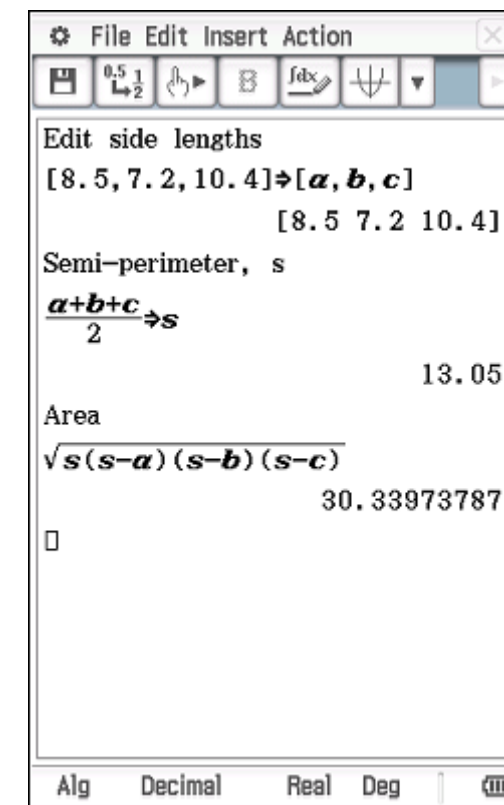
Edit side lengths
[6, 8, 13] ⇒ [a, b, c]

Semi-perimeter, s
 $\frac{a+b+c}{2} \Rightarrow s$

Area
 $\sqrt{s(s-a)(s-b)(s-c)}$

13.5
16.6864466

Alg Decimal Real Deg



File Edit Insert Action

Edit side lengths
[8.5, 7.2, 10.4] ⇒ [a, b, c]

Semi-perimeter, s
 $\frac{a+b+c}{2} \Rightarrow s$

Area
 $\sqrt{s(s-a)(s-b)(s-c)}$

13.05
30.33973787

Alg Decimal Real Deg