Display

TI-Nspire™   Coding   Student   20 min

Introduction

The Display command is generally used to communicate information with the person using the program. The information may be the result of a calculation, data or as a prompt. In these exercises you will explore different ways to use the display command.

It is assumed that you have completed **Unit 1 Programming Basics - Skill Builder 1**
You may return to the Skill Builder exercise at any time to review the instructions.

Display

Start a new document and create a program titled:

   Displays

Enter the two lines of commands shown opposite. You can substitute your own name instead of the name used here.
When you have finished use Ctrl + B to compile and save the program.
Insert a calculator application and run your program.

Question: 1.

Write down the output of the program as it is displayed in the calculator application screen.
(You may use a screen capture)

Note that "Hello" and "Haley" are on two different lines and that "Haley" (student's name) is spelt with a capital letter signifying that it has been recognised as text.

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TEXAS INSTRUMENTS
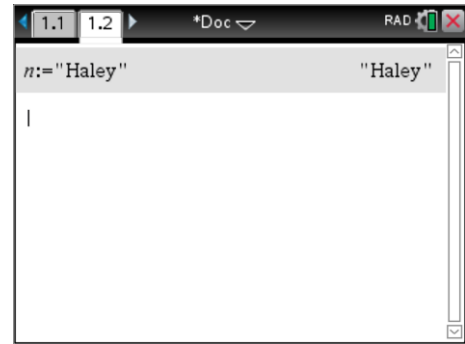
While in the calculator application store your name in 'n'.

      n : = "Haley"

Notice that the name is provided in quotation marks. ":=" can be obtained by pressing Ctrl + ▭ (Mathematics template)

Change the second line of the program from Display "Haley" to:

      Display n

Save and compile your program then run it in the calculator application.

Question: 2.

Write down the output of the program as it is displayed in the calculator application screen.

Output is the same as the previous program.

Question: 3.

In the calculator application change n from "Haley" to simply: Haley (no quotation marks). Run the program again and see if this makes any difference to the output of the program. **[TI-Nspire CX CAS only]**

This time 'haley' is displayed without the capitalisation, it is being treated as a variable called 'haley'. Notice also that the name is now italicised giving further evidence that it is being recognised as a variable rather than text.

Question: 4.

In the calculator application, use the delvar command to delete the variable 'n'. [delvar n]. Run the program again and compare the result with Question 2 and 3. **[TI-Nspire CX CAS Only]**

The variable 'n' does not have anything stored so the result is displayed with the variable name only.

Delete the second line in the program: "Display n" and edit the first line:

> Disp "Hello",n

Save and compile your program. In the calculator application change the variable n to:

> n : = "World"

Run the program.

Question: 5.

Write down the output of the program as it is displayed in the calculator application screen and comment on any differences with regards to the layout of the output.

The inclusion of a comma (,) rather than an additional display command places the text on a single line. Notice also that a space is automatically inserted between the two pieces of text.

Question: 6.

Haley wants to have the program write: "My name is" followed by the person's first name and last name. The person's first name will be stored in n and their last name will be stored in m, as shown on the calculator application opposite.

Change your program so that it produces this result and write down the line of code that you used.

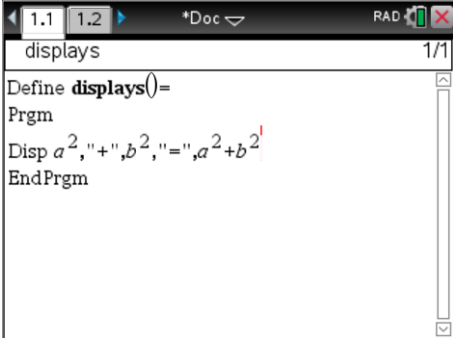Both variables must have the text stored for this approach to work.

Change the program to that shown opposite. Ensure that all the punctuation matches exactly.

In the calculator application store numerical values in a and b.

　　　a : = 3

　　　b : = 4

Save and compile your program and run it in the calculator application.

Question: 7.

Explain what is happening with this new program. Can the calculator include computations directly in a display command?

The calculator computes the value of a^2 and also b^2 and inserts them accordingly. The computation of $a^2 + b^2$ is also computed. The result is a true statement: 9 + 16 = 25

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b : = 4

TEXAS INSTRUMENTS