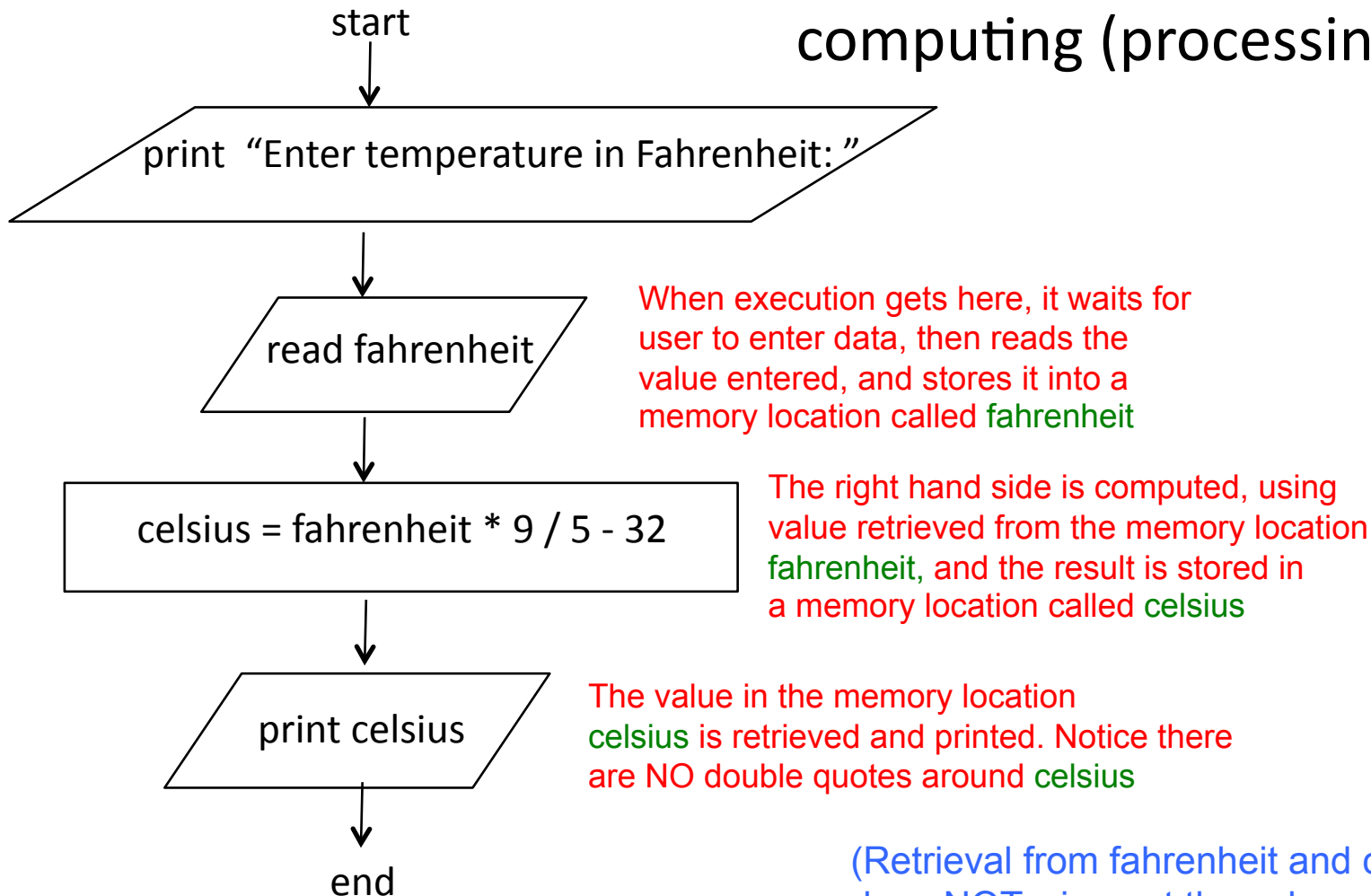# CS 111
Introduction to Computer Science

Fall 2015

Lecture 4: Sep 15, 2015

Fahrenheit to Celsius conversion:
Printing (output), reading (input), computing (processing)

start

print "Enter temperature in Fahrenheit:"

read fahrenheit

When execution gets here, it waits for user to enter data, then reads the value entered, and stores it into a memory location called fahrenheit

celsius = fahrenheit * 9 / 5 - 32

The right hand side is computed, using value retrieved from the memory location fahrenheit, and the result is stored in a memory location called celsius

print celsius

The value in the memory location celsius is retrieved and printed. Notice there are NO double quotes around celsius

end

(Retrieval from fahrenheit and celsius does NOT wipe out the values – they are still there, and can be reused as many times as needed.)

Does The Program Work Correctly?

Check by running it for various input (fahrenheit) values, and compare the output (celsius) value against the expected (correct) value. This process is called TESTING

Input (Fahrenheit)	Output (Celsius)	Expected Result
32	25.6	0
100	148	37.78
-40	-104	-40
-300	-572	-184.44

The results of testing the program show that it does NOT work correctly.

celsius = fahrenheit * 9 / 5 - 32

celsius = (fahrenheit – 32) * 5 / 9   Retest to confirm that this is correct