

EXPERIMENT 3

3.1 PROGRAMS:

3.1.1//Largest of three numbers

ALGORITHM:

Step 1 : Start

Step 2 : Input n1,n2,n3

Step 3 : If $n1 > n2$ and $n1 > n3$

Print n1 is largest

el if $n2 > n1$ and $n3 > n2$

print n2 is the lagest

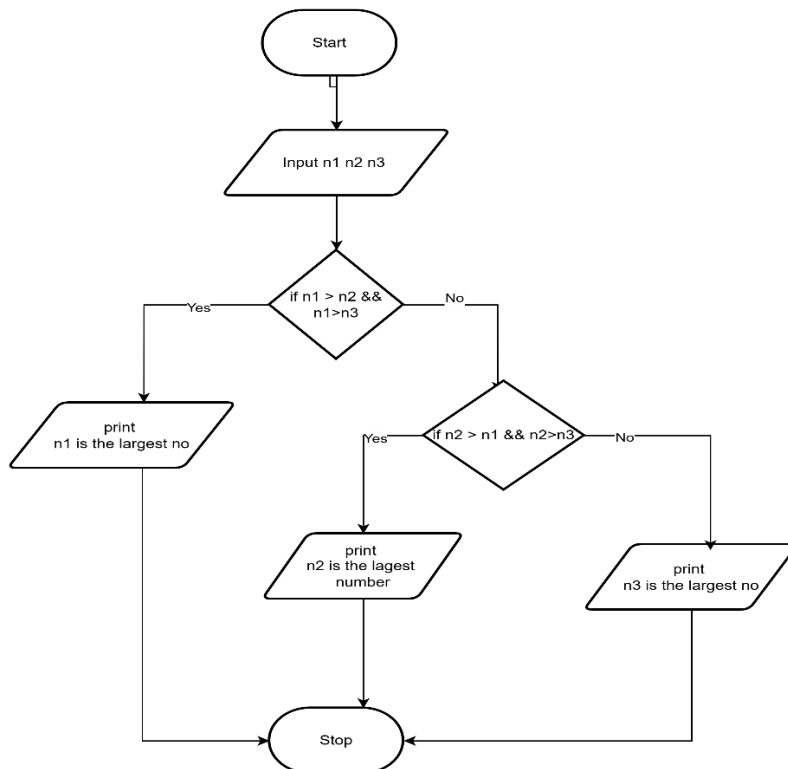
else

print n3 is the lagest

loop end

Step 4 : Stop

FLOWCHART:



CODETANTRA:

The screenshot displays the CODETANTRA web interface. On the left, a problem titled "3.1.1. Largest of Three Numbers" is shown. It asks the user to write a Python program that prompts for three integers and prints the largest. The input format specifies three integers on separate lines, and the output format specifies the largest integer. Below the problem description is a "Sample Test Cases" section.

The main area shows a code editor with the following Python code:

```
1 a = int(input())
2 b = int(input())
3 c = int(input())
4
5 print(max(a, b, c))
```

Below the code editor, the execution results are displayed. It shows an average time of 0.013 s and a maximum time of 0.018 s. The status indicates "2 out of 2 shown test case(s) passed" and "2 out of 2 hidden test case(s) passed". A table shows the expected output (5, 6, 7) and the actual output (5, 6, 7) for Test case 1. The interface also includes a "SUBMIT" button, a "DEBUG" button, and a "Terminal" section.

3.1.2//Celsius to farehinheit

ALGORITHM:

Step 1: Start

Step 2: Read temperature in Celsius → C

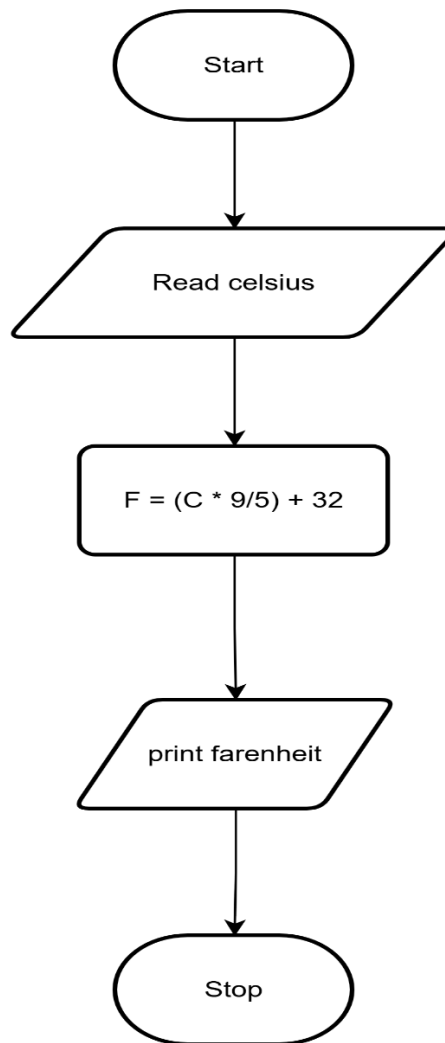
Step 3: Calculate Fahrenheit using the formula

$$F = (C \times \frac{9}{5}) + 32$$

Step 4: Display value of F

Step 5: Stop

FLOWCHART:



CODETANTRA:

The screenshot displays the CODETANTRA development environment. On the left, the problem statement for '3.1.2. Celsius to Fahrenheit' is shown, including the formula $Fahrenheit = (Celsius \times \frac{9}{5}) + 32$ and input/output specifications. The main editor shows a Python script that implements this conversion. The right-hand panel provides a comprehensive overview of the code's execution, including performance metrics, test case results, and a detailed view of a specific test case.

Python Code:

```
1 celsius = float(input())
2
3 fahrenheit = (celsius * 9/5) + 32
4
5 print(f"{fahrenheit:.2f}")
```

Performance Metrics:

Metric	Value
Average time	0.008 s
Maximum time	0.034 s
8.38 ms	34.00 ms

Test Results:

- 4 out of 4 shown test case(s) passed
- 4 out of 4 hidden test case(s) passed

Test Case 1 Details:

Test Case	Expected output	Actual output
Test case 1	32.00	32.00