

Programming Exercise L1

Temperature Conversion, v 1.5

Purpose. The purpose of this lab is similar to the purpose of Programming Exercise 5.4.

You are to write programming logic to convert temperature from Celsius to Fahrenheit for some specific values of temperatures.

In performing the conversion for these values, you are to use a loop. Within the loop you will convert the specific values from Celsius to Fahrenheit.

The loop may be either a while loop or a for loop.

Write a program called temperatureLoopConvert.cpp to convert 3 temperature values from Celsius to Fahrenheit.

Requirements.

1. Use these 3 Celsius temperature values: -40° C, 0° C, 100° C in a loop.

Each time the loop is performed (that is, each time the loop iterates) one of the Celsius temperature values is converted to Fahrenheit. That is:

1st time loop is performed/iterates: -40° C is converted to Fahrenheit.

2nd time loop is performed/iterates: 0° C is converted to Fahrenheit.

3rd time loop is performed/iterates: 100° C is converted to Fahrenheit.

2. From Programming Exercise 5.4:

$$F = (9/5) C + 32$$

The loop must use this formula inside it.

Each time the loop is performed (that is, each time the loop iterates) one of the Celsius temperature values is converted to Fahrenheit. That is:

1st time loop is performed/iterates the formula is used to convert -40° C to Fahrenheit.

2nd time loop is performed/iterates the formula is used to convert 0° C to Fahrenheit.

3rd time loop is performed/iterates the formula is used to convert 100° C to Fahrenheit.

Note -40° C is -40° F, 0° C is 32° F, 100° C is 212° F. Feel free to use these values to make sure your program is displaying the correct Fahrenheit values

Program I/O. Input: None. Output should be in a table like format that looks similar to this:

Temperatures From Celsius To Fahrenheit

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-40 C -40 F

0 C 32 F

100 C 212 F