

# 1336 Examination 1

## General Statement

You must write this examination starting with **Basic template.py**.

Everything in the template is laid out for you to put the right things in the right place. **Leave every comment as it is**, from the **# Program <program name>** line to the **# End Program** line.

Exception to that rule: you **must** change everything in **angle brackets**, which are placeholders waiting for important information. For example

<b># Program &lt;program name&gt;</b>	becomes	<b># Program independence</b>
<b># &lt;what the program does&gt;</b>	becomes	<b># starts a revolution</b>
<b># Date: &lt;today's date&gt;</b>	becomes	<b># Date: 4 July 1776</b>

You will add a line for **<revision date>** every new date that you work on the program.

**Do not leave the angle bracket.** It's **independence**, not **<independence>**.

## Background

Abraham Lincoln was visiting the Union troops during the Civil War. A soldier brought him a beverage. Lincoln sipped it and said, "If this is tea please bring me some coffee, but if this is coffee please bring me some tea."

## The Problem

**Write a program** that inputs a **decimal** number from a user. Then produce this output:

If <number> is Fahrenheit, it is <converted value> degrees Celsius.

If <number> is Celsius, it is <converted value> degrees Fahrenheit.

**The conversion formulas** are

Fahrenheit is Celsius times 9 / 5 plus 32.

Celsius is Fahrenheit minus 32 times 5 / 9.

**Test your calculations** (for example – be sure to test all seven values):

Celsius	Fahrenheit
0.0	32.0
100.0	212.0
-40.0	-40.0
37.0	98.6

**Example output:**

If 0.0 is Fahrenheit, it is -17.8 degrees Celsius.

If 0.0 is Celsius, it is 32.0 degrees Fahrenheit

You do not have to submit the output, only the program. Number formatting in the output is not required.

<b>Extra Credit:</b> Format output values to 1 decimal place as shown	<b>+5 points</b>
Use constants F_TO_C and C_TO_F for the values 5 / 9 and 9 / 5, respectively	<b>+5 points</b>

Submit (in **Blackboard**) the file **Exam1.py**.

Name the file **exactly** as given. **Do not add anything to the program name.** Not your name, not your ID number, not words like "version 1", "revised", "solution", or any additional characters as part of the file name.

The **Python** program is scored with a maximum value of **200 points**.