

## **Temperature Conversion**

**Task:** Write a computer program that will change a Fahrenheit temperature to Celsius. Write the version of the program in C++. Your programs must match your algorithm!!!

**Input:** The temperature in Fahrenheit degrees, provided interactively by the user. The input value will be a real number.

**Output:** Display the Fahrenheit input temperature and the corresponding Celsius temperature, also a real number. The results may be displayed on the screen. Provide a simple message to explain the output (i.e., one sentence). The C++ output should be formatted neatly, with one decimal position displayed in the numbers.

Sample output: 212.0 degrees Fahrenheit = 100.0 degrees Celsius.

### **Programming:**

- Include internal and external documentation.
- Initial comments at the beginning of each program should provide the program name, your name, and a simple statement of what the program does.
- Include a meaningful prompt for the user.
- To avoid doing data conversions or losing data through integer truncations, use only real numbers in the calculations. A number constant will be treated as a real number if you include a decimal point and a trailing 0.

$$\text{Formula: } C = \frac{5.0}{9.0}(F - 32.0)$$

### **Submissions:**

- Submit an electronic copy of the of your algorithm fist in the D2L dropbox. Due date is listed above.
- Then submit the **source code** files in the D2L dropbox. Due date is listed above. Algorithm is worth 5 points. Each program is worth 15 points.
- *Include your first initials/last name at the beginning of the name of any program submission.* Ex. RClark\_Tempconversion.docx