CS410P

LAB 8L

Purpose

The purpose of this assignment is to give you more practice with loops and lists.

Problem

Write a program to convert a range of temperatures from Fahrenheit to Celsius, Kelvin and Rankine (input range is specified by the user). As each value is computed, each type of temperature must be stored in its **own** list, so we have one list for Fahrenheit, one for Celsius, one for Kelvin, one for Rankine. After computing all the values the four lists are printed item by item, one row at a time as indicated in the sample output (note that printing must be done at the end **after** all values are computed and stored in lists).

Details

Fahrenheit to Celsius: °C = 5/9 (° F - 32)
Fahrenheit to Kelvin: °K = 5/9 (° F - 32) + 273.15
Fahrenheit to Rankine: ° R = °F + 459.67

Input

Two inputs indicating starting and ending values for Fahrenheit, range should be within -30 to 130 (both inclusive) anything outside this range should terminate the program with an error message (as well as input that are not integers). Only one set of inputs need to be provided.

Output

Sample outputs are provided in the public folder.

Grade Key

A	Comments (including Name, brief description about program)	**5**
B	A pair of integers are accepted for input, all invalid input must be caught using an exception handler or validation	**15**
C	Celsius values are accurate	**20**
D	Kelvin values are accurate	**15**
E	Rankine values are accurate	**15**
F	Correct range of temperatures computed	**10**
G	Temperature values are printed one at a time after results are stored in lists as shown in sample output (each type of temperature must be stored in its own list otherwise -20)	**20**