/\*

Name: Dharmesh Patel

Date 2018.08.29

Assignment: Lab 1 - Problem 1

Description: This program asks the user for a temperature in degrees Celsius

and returns the value in degrees Fahrenheit

\*/

#include <iostream>

using namespace std;

double convert(double value);

int main() {

double celsiusTemp;

//Asks for user input

cout << "Please enter a Celsius value: ";

cin >> celsiusTemp;

//checks if user input is valid Celsius temperature

if (convert(celsiusTemp)) {

//If user input is valid, output Fahrenheit temperature

cout << celsiusTemp << " degrees Celsius is " << convert(celsiusTemp) << " degrees Fahrenheit." << endl;

//below line prevents console from closing automatically after successfully executing the program

system("PAUSE");

}

else {

//If user input is not valid, tell user the error and prompt for Celsius value again

cout << "The value you entered is too low to be a Celsius temperature value." << endl;

cout << "Please enter a Celsius value: ";

cin >> celsiusTemp;

}

return 0;

}

//method converts temperature in Celsius into Fahrenheit

double convert(double temp) {

if (temp < -273.15 ) {

return 0.0;

}

return 1.8 \* temp + 32.0;

}