Write the following two functions with the given header

* double celsiusToFahrenheit(double celsius)

Which converts the given temperature in celsius to fahrenheit.

* double fahrenheitToCelsius(double fahrenheit)

Which converts the given temperature in fahrenheit to celsius.

The formulas for conversion are:

fahrenheit=(9.0/5)\*celsius + 32

celsius=(5.0/9)\*(fahrenheit - 32)

Write the main function to declare required variables and to ask the user which conversion he would like to do:. The user should enter 1) for Celsius to Fahrenheit conversion or 2) for Fahrenheit to Celsius conversion.

Check the user's choice and then call the appropriate function. The function returns the calculated results to the main function. Your program saves the return value and prints it.

A sample run is given on the next page.

**Sample Run:**

\*\* Temperature Conversion \*\*

Enter 1) for celsius to fahrenheit conversion

Enter 2) for fahrenheit to celsius conversion

Enter -1) to Exit

1

Enter a temperature in celsius:56

Temperature in Fahrenheit:132.80

\*\* Temperature Conversion \*\*

Enter 1) for celsius to fahrenheit conversion

Enter 2) for fahrenheit to celsius conversion

Enter -1) to Exit

2

Enter a temperature in fahrenheit:67

Temperature in Celsius:19.44

\*\* Temperature Conversion \*\*

Enter 1) for celsius to fahrenheit conversion

Enter 2) for fahrenheit to celsius conversion

Enter -1) to Exit

3

Wrong Selection. Try again

\*\* Temperature Conversion \*\*

Enter 1) for celsius to fahrenheit conversion

Enter 2) for fahrenheit to celsius conversion

Enter -1) to Exit

-1

Good Bye

**ANSWER**:

#include <stdio.h>

double celsiusToFarenheit(double celsius)

{

return (9.0/5)\*celsius + 32;

}

double fahrenheitToCelsius(double fahrenheit)

{

return (5.0/9)\*(fahrenheit - 32);

}

int main()

{

int sel;

double cel, far , result;

do{

printf("\*\* Temperature Conversion \*\*\n");

printf("Enter 1) for celsius to fahrenheit conversion\n"

"Enter 2) for fahrenheit to celsius conversion\n"

"Enter -1) to Exit\n");

scanf("%d",&sel);

switch (sel) {

case 1:

printf("Enter a temperature in celsius:");

scanf("%lf",&cel);

result = celsiusToFarenheit(cel);

printf("Temperature in Fahrenheit:%.2lf\n",result);

break;

case 2:

printf("Enter a temperature in fahrenheit:");

scanf("%lf",&far);

result = fahrenheitToCelsius(cel);

printf("Temperature in celsius:%.2lf\n",result);

break;

case -1:

printf("Goodbye!\n");

break;

case 0:

printf("Wrong Selection. Try again!\n");

break;

default:

break;

}

}while(sel!=-1);

return 0;

}