Day 19/8/25 1/write a program in c language to calculate the simple interest.

CODE:

#include <stdio.h>

int main()

{

float principal, rate, time, simpleInterest;

printf("Enter Principal Amount: ");

scanf("%f", &principal);

printf("Enter Rate of Interest (in %%): ");

scanf("%f", &rate);

printf("Enter Time (in years): ");

scanf("%f", &time);

simpleInterest = (principal \* rate \* time) / 100;

printf("Simple Interest = %.2f\n", simpleInterest);

return 0;

}

OUTPUT:

Enter Principal Amount: 1000

Enter Rate of Interest (in %): 5

Enter Time (in years): 2

Simple Interest = 100.00

2/write a program in c language to calculate area of circle

CODE:

#include <stdio.h>

int main()

{

float radius, area;

printf("Enter the radius of the circle: ");

scanf("%f", &radius);

area = PI \* radius \* radius;

printf("Area of the circle = %.2f\n", area);

return 0;

}

OUTPUT:

Enter the radius of the circle: 4

Area of the circle = 50.27

3/write a program in c language to calculate fahrenheit to celsius and vice versa.

CODE:

#include <stdio.h>

int main()

{

int choice;

float temp, converted;

printf("Temperature Conversion Program\n");

printf("1. Fahrenheit to Celsius\n");

printf("2. Celsius to Fahrenheit\n");

printf("Enter your choice (1 or 2): ");

if (choice == 1)

{

printf("Enter temperature in Fahrenheit: ");

scanf("%f", &temp);

converted = (temp - 32) \* 5 / 9;

printf("Temperature in Celsius = %.2f°C\n", converted);

}

else if (choice == 2)

{

printf("Enter temperature in Celsius: ");

scanf("%f", &temp);

converted = (temp \* 9 / 5) + 32;

printf("Temperature in Fahrenheit = %.2f°F\n", converted);

}

else

{

printf("Invalid choice! Please enter 1 or 2.\n");

}

return 0;

}

OUTPUT:

Temperature Conversion Program

1. Fahrenheit to Celsius

2. Celsius to Fahrenheit

Enter your choice (1 or 2): 1

Enter temperature in Fahrenheit: 98.6

Temperature in Celsius = 37.00°C

Temperature Conversion Program

1. Fahrenheit to Celsius

2. Celsius to Fahrenheit

Enter your choice (1 or 2): 2

Enter temperature in Celsius: 100

Temperature in Fahrenheit = 212.00°F

4/write a program in c language to swap two numbers using third variable.

CODE:

#include <stdio.h>

int main()

{

int a, b, temp;

printf("Enter first number (a): ");

scanf("%d", &a);

printf("Enter second number (b): ");

scanf("%d", &b);

printf("Before swapping: a = %d, b = %d\n", a, b);

temp = a;

a = b;

b = temp;

printf("After swapping: a = %d, b = %d\n", a, b);

return 0;

}

OUTPUT:

Enter first number (a): 5

Enter second number (b): 10

Before swapping: a = 5, b = 10

After swapping: a = 10, b = 5

5/write a program in c language to swap two numbers without using third variable.

CODE:

#include <stdio.h>

int main()

{

int a, b;

printf("Enter two numbers: ");

scanf("%d %d", &a, &b);

printf("Before swapping: a = %d, b = %d\n", a, b);

a = a + b;

b = a - b;

a = a - b;

printf("After swapping: a = %d, b = %d\n", a, b);

return 0;

}

OUTPUT:

Enter two numbers: 5 ,10

Before swapping: a = 5, b = 10

After swapping: a = 10, b = 5