1. Write a C program to add two integers.

 **Input**: Takes two integers from the user using scanf.

 **Process**: Adds the two integers.

 **Output**: Displays the result using printf

#include<stdio.h>

void main()

{

int num1, num2, sum;

printf("Enter first integer: ");

scanf("%d", &num1);

printf("Enter second integer: ");

scanf("%d", &num2);

sum = num1 + num2;

printf("Sum = %d\n", sum);

}

1. Write a program to swap two numbers using a temporary variable.

 **Input**: User enters two numbers (a and b)

 **Process**: Swap using a temporary variable

 **Output**: Display swapped values of a and b

#include <stdio.h>

void main()

{

int a, b, temp;

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

scanf("%d", &a);

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

scanf("%d", &b);

temp = a;

a = b;

b = temp;

printf("After swapping:\n");

printf("a = %d\n", a);

printf("b = %d\n", b);

}

1. Write a program to swap two numbers without using a temporary variable.

**Input**

* Reads two integers from the user.

**Process**

* Swaps values of a and b without a temporary variable using arithmetic operations.

**Output**

* Prints the values after swapping.

#include <stdio.h>

void main()

{

int a, b;

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

scanf("%d", &a);

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

scanf("%d", &b);

a = a + b;

b = a - b;

a = a - b;

printf("After swapping:\n");

printf("a = %d\n", a);

printf("b = %d\n", b);

}

1. Write a program to find the ASCII value of a character.

**Input**

User enters a character.

**Process**

The character is typecast to its ASCII integer value.

**Output**

The program prints the ASCII value of the entered character.

#include <stdio.h>

void main()

{

int ascii, char ch;

printf("Enter a character: ");

scanf("%c", &ch);

ascii = (int)ch;

printf("The ASCII value of '%c' is %d\n", ch, ascii);

}

1. Write a program to calculate the area and perimeter of a rectangle.

**Input**:

* 1. User enters the **length**
  2. User enters the **width**

**Process**:

* 1. area = length \* width
  2. perimeter = 2 \* (length + width)

**Output**:

* 1. Display the **area**
  2. Display the **perimeter**

#include <stdio.h>

void main()

{

float length, width, area, perimeter;

printf("Enter the length of the rectangle: ");

scanf("%f", &length);

printf("Enter the width of the rectangle: ");

scanf("%f", &width);

area = length \* width;

perimeter = 2 \* (length + width);

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

printf("Perimeter = %.2f\n", perimeter);

}

1. Write a program to compute the simple interest.

 **Input**:

* Read principal amount
* Read rate of interest
* Read time period

**Process**:

* Calculate interest using formula: (principal \* rate \* time) / 100

**Output**:

* Display the calculated simple interest

#include <stdio.h>

void main()

{

float principal, rate, time, interest;

printf("Enter principal amount: ");

scanf("%f", &principal);

printf("Enter annual interest rate (in %%): ");

scanf("%f", &rate);

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

scanf("%f", &time);

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

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

}

1. Write a program to convert temperature from Celsius to Fahrenheit.

**Input:** User enters temperature in Celsius.

**Process:** Apply formula F = (C × 9/5) + 32.

**Output:** Display temperature in Fahrenheit.

#include <stdio.h>

void main()

{

float celsius, fahrenheit;

printf("Enter temperature in Celsius: ");

scanf("%f", &celsius);

fahrenheit = (celsius \* 9 / 5) + 32;

printf("%.2f Celsius = %.2f Fahrenheit\n", celsius, fahrenheit);

}

1. Write a program to find the quotient and remainder of two integers.

* **Input:** User enters two integers (dividend and divisor).
* **Process:** Use / for quotient and % for remainder.
* **Output:** Display quotient and remainder.

#include <stdio.h>

void main()

{

int dividend, divisor, quotient, remainder;

printf("Enter dividend: ");

scanf("%d", &dividend);

printf("Enter divisor: ");

scanf("%d", &divisor);

quotient = dividend / divisor;

remainder = dividend % divisor;

printf("Quotient = %d\n", quotient);

printf("Remainder = %d\n", remainder);

}

1. Write a program to check whether a number is even or odd.

 **Input:** User enters an integer.

 **Process:** Check remainder when divided by 2.

 **Output:** Print if the number is even or odd.

#include <stdio.h>

void main()

{

int num;

printf("Enter an integer: ");

scanf("%d", &num);

if (num % 2 == 0)

{

printf("%d is even.\n", num);

}

else

{

printf("%d is odd.\n", num);

}

}

10. Write a program to calculate the square and cube of a number.

* **Input:** User enters an integer.
* **Process:** Calculate square and cube using multiplication.
* **Output:** Display the results.

#include <stdio.h>

void main()

{

int num;

long long square, cube;

printf("Enter an integer: ");

scanf("%d", &num);

square = (long long)num \* num;

cube = (long long)num \* num \* num;

printf("Square of %d = %lld\n", num, square);

printf("Cube of %d = %lld\n", num, cube);

}