Day 1: Basic Input/Output and Operators (2-8-2025)

1. Write a C program to add two integers.

IPO

INPUT: - take two numbers say (n1, n2)

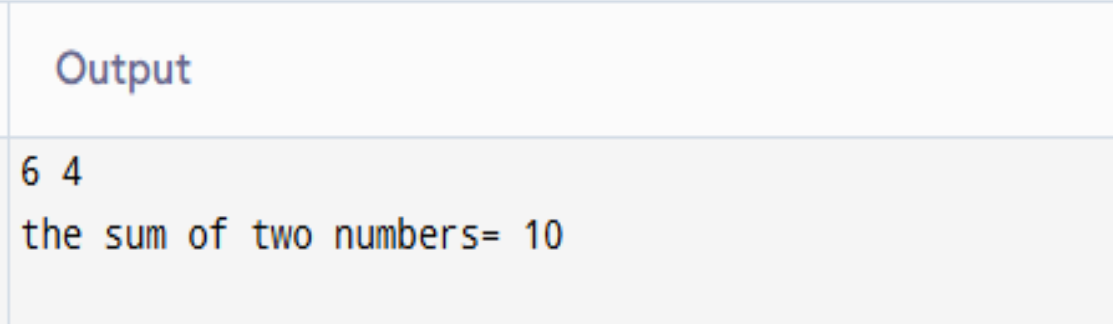
PROCESS: - use '+' to add the numbers to get sum of number. (sum=n1+n2)

OUTPUT: - the sum of two integers output will be (eg : n1=2, n2=2, sum=4)

CODE:

```
#include<stdio.h>
void main()
{
   int n1,n2,sum;
   scanf("%d %d",&n1,&n2);
   sum=n1+n2;
   printf("the sum of two numbers= %d",sum);
}
```

OUTPUT:



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

IPO

INPUT: - enter a number say a,b and enter a temporary variable say c

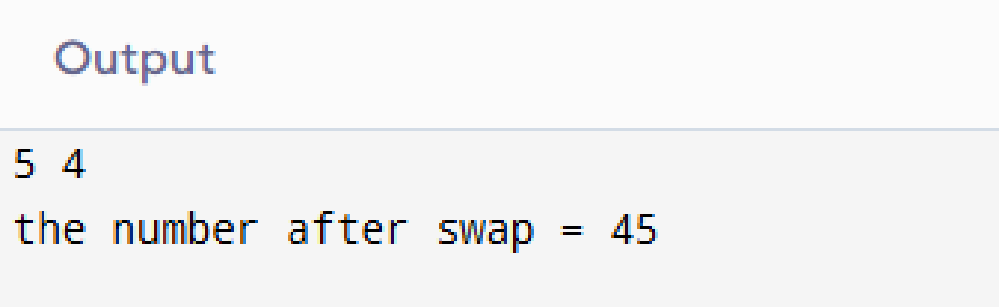
PROCESS: - to swap numbers, 1st enter input the ‘a’ value to ‘c’ and ‘b’ value to ‘a’, then enter the ‘c’ value to ‘b’.

OUTPUT: - for example if the two numbers are 67 the output will be 76 .

CODE: -

```
#include<stdio.h>
void main()
{
   int a,b,c; // c is temporary variable
   scanf("%d%d",&a,&b);
   c=a;
   a=b;
   b=c;
   printf("the number after swap = %d%d",a,b);
}
```

OUTPUT: -



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

IPO

INPUT

Two integer numbers (let's say a and b)

Process: Swap the values of a and b without using a temporary variable:

```
a = a + b
b = a - b
a = a – b
```

Output: The values of a and b after swapping

CODE; -

```
#include<stdio.h>
void main()
{
   int a, b;
   scanf("%d %d",&a,&b);
   a = a + b;
   b = a - b;
   a = a - b;
   printf("After swapping:%d%d",a,b);
}
```

OUTPUT; -

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

IPO

INPUT

Take a single character from user say ‘ch’.

PROCESS

Convert the character to the ASCII value, char will automatically convert to int if we use ‘%d’

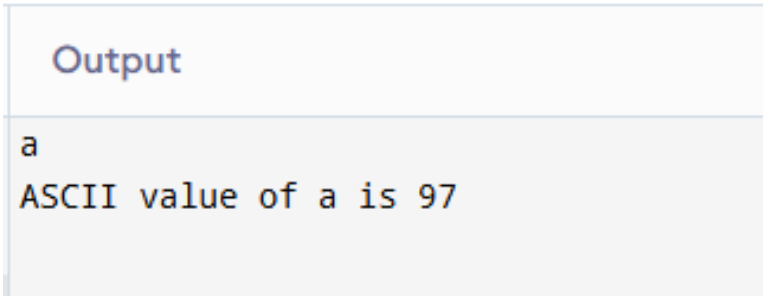
OUTPUT

Display the ASCII value.

CODE;

```
#include<stdio.h>
void main()
{
   char ch;
   scanf("%c", &ch);
   printf("ASCII value of %c is %d\n", ch, ch);
}
```

OUTPUT;



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

IPO

INPUT

Take length and breadth of rectangle say ‘l’ and ‘b’

PROCESS

To find area and perimeter

Area = l*b, perimeter=2*(l+b)

OUTPUT

To print the area and perimeter of the rectangle.

CODE;

```
#include<stdio.h>
void main()
{
   int l,b,area,perimeter;
   scanf("%d %d",&l,&b);
   area=l*b;
   perimeter=2*(l+b);
   printf("Area = %d\n", area);
```

```
   printf("Perimeter = %d ", perimeter);
}
```

OUTPUT;

```
Output

5 10
Area = 50
Perimeter = 30
```

6. Write a program to compute the simple interest.

IPO

INPUT

Take input from user for principal, rate of interest, time say (p,r,t)

PROCESS

Formula => SI=(p*r*t)/100

OUTPUT

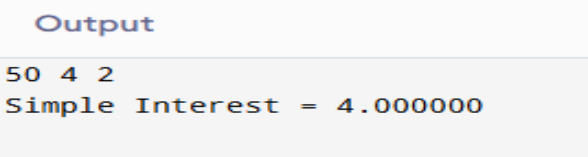
Printf the result of simple interest(SI)

CODE;

```
include <stdio.h>
void main()
{
    float p,r,t,interest;
    scanf("%f %f %f",&p,&r,&t);
    interest = (p*r*t) / 100;
    printf("Simple Interest = %f\n", interest);
```

}

OUTPUT;



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

IPO

INPUT

Temp in celsius

PROCESS

FAHRENHEIT= (clesius * 9/5)+32

OUTPUT

Temp in fahrenheit

CODE;

```
#include <stdio.h>
void main()
{
   float celsius,fahrenheit;
   scanf("%f", &celsius);
   fahrenheit = (celsius * 9 / 5) + 32;
   printf("Temperature in Fahrenheit = %f\n", fahrenheit);
}
```

OUTPUT;

Output

```
37
Temperature in Fahrenheit = 98.599998
```

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

IPO

INPUT

Take a n1,n2

PROCESS

Calculate quotient =n1/n2

Calculate remainder= n1%n2

OUTPUT

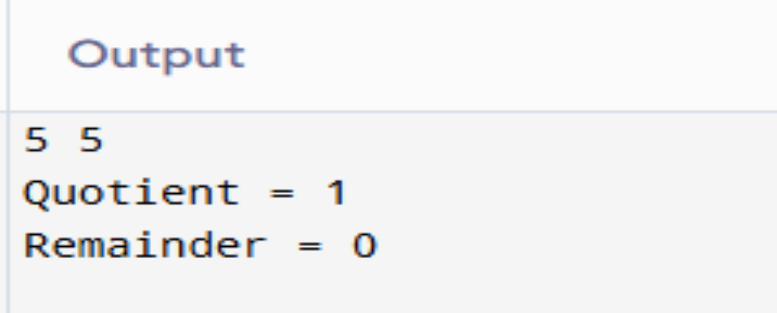
Print (quotient and remainder)

CODE;

```
#include <stdio.h>
 void main()
{
   int n1,n2,quotient,remainder;
   scanf("%d %d", &n1,&n2);
   quotient = n1/n2;
   remainder = n1 % n2;
   printf("Quotient = %d\n", quotient);
```

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

OUTPUT;



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

IPO

INPUT

TAKE A NUMBER WHICH IS GIVEN BY USER.

PROCESS

Check num%2==0

OUTPUT

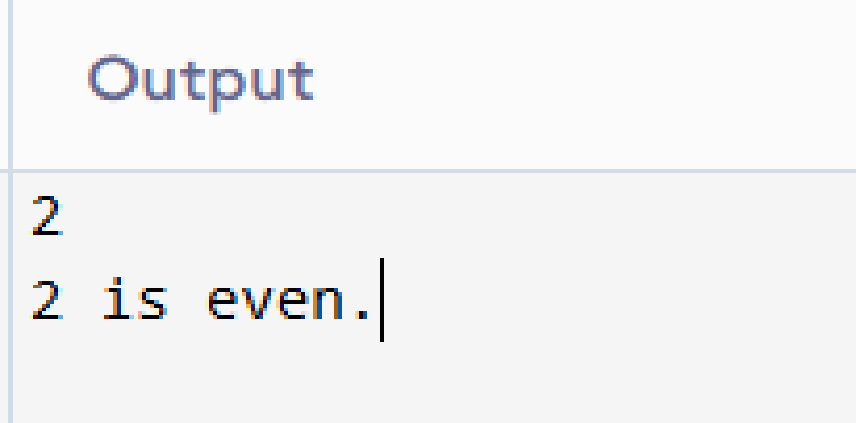
IT DISPLAY WHETHER THE NUMBER IS EVEN OR NOT

CODE;

```
#include <stdio.h>
void main()
{
   int num;
   scanf("%d", &num);
   if (num % 2 == 0)
      printf("%d is even.\n", num);
   else
      printf("%d is odd.\n", num);
```

}

OUTPUT;



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

IPO

INPUT;

Take a number say ‘n’

PROCESS

To find square and cube of num

Square= n*n

Cube = n*n*n

OUTPUT

To print the square and cube of the number (‘n’)

CODE;

```
#include <stdio.h>

void main()

{

   int n, square, cube;
```

```
    scanf("%d", &n);

     square = n * n;

     cube = n * n * n;

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

     printf("Cube = %d", cube);

}
```

OUTPUT;

```
Output

2
Square = 4
Cube = 8
```

- THESE ALL PROGRAMS DONE IN PROGRAMIZ WEBSITE