1.   Write a C program to add two integers.

IPO:
Input- Numbers says to add two integers
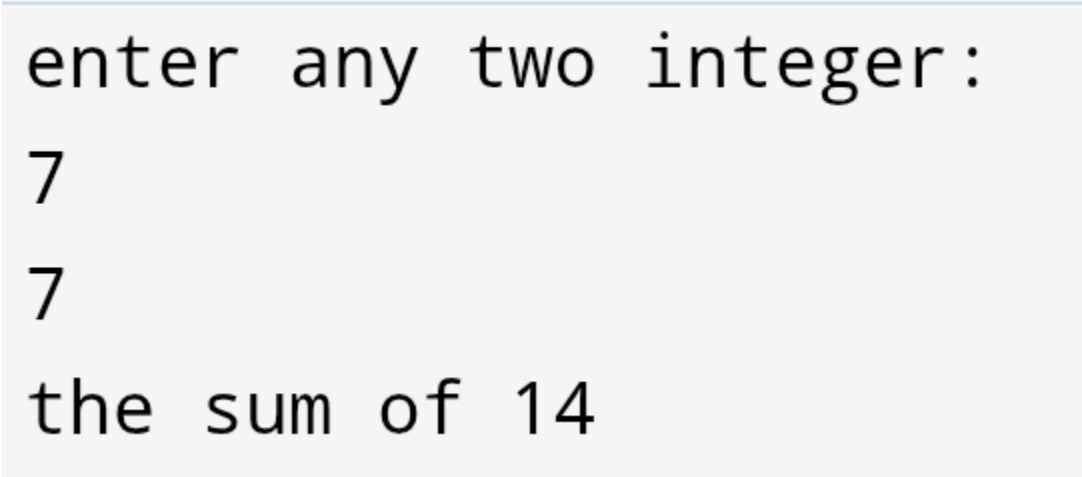Process-Adding of numbers of a,b and output the variable a,b.
Output-Output the variable a,b

Program:

```c
#include<stdio.h>
int main()
{
    int a,b,sum=0;
    printf("enter any two integer:\n");
    scanf("%d %d",&a,&b);
    sum=a+b;
    printf("the sum of %d ",a+b);
    return 0;
}
```

Output

```
enter any two integer:

7

7

the sum of 14
```

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

IPO:

Input-Number says to swap two numbers.
Process-swapping of numbers of a,b using temporary variable and output the variable.
Output-output the variable.

Program:

```c
#include<stdio.h>
int main()
{
    int a,b,temp;
    printf("enter two numbers");
    scanf("%d%d",&a,&b);
    printf("before swapping:%d %d",a,b);
    temp=a;
    a=b;
    b=temp;
    printf("after swapping:%d %d",a,b);
    return 0;
}
```
Output

```
enter two numbers
10
20
before swapping:10 20after swapping:20 10
```

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

IPO:
Input-Number says to swap two numbers.
Process-swapping of numbers of a,b without temporary variable and output the variable.
Output-output the variable.

Program:

```c
#include<stdio.h>
int main()
{
    int a,b;
    printf("enter two numbers");
    scanf("%d %d",&a,&b);
    printf("before swapping:%d %d",a,b);
    a=a+b;
    b=a-b;
    a=a-b;
    printf("after swapping:%d %d\n",a,b);
```

```
    return 0;
}
```

Output:

```
enter two numbers
40
50
before swapping:40 50after swapping:50 40
```

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

IPO:
Input-Number says to find the ASCII value of a character
Process- finding the ASCII value of a character and output the variable.
Output-output the variable.

Program:

```
#include<stdio.h>
int main()
{
    char c;
    printf("enter a character");
    scanf("%c",&c);
    printf("ASCII value of %c = %d",c,c);
    return 0;
}
```

Output:

```
enter a characterz
ASCII value of z = 122
```

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

IPO:
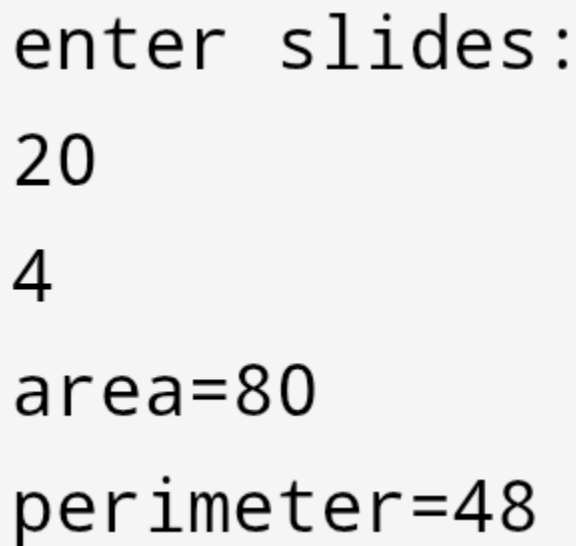   Input-Number says to calculate the area and perimeter of a rectangle
Process- To calculate the area and perimeter of a rectangle and output the variable.
Output-output the variable.

Program:

```c
#include<stdio.h>
int main()
{
    int a,b,area,perimeter;
    printf("enter slides:\n");
    scanf("%d %d",&a,&b);
    area=a*b;
    perimeter=2*(a+b);
    printf("area=%d\n",area);
    printf("perimeter=%d",perimeter);
    return 0;
}
```

Output:

```
enter slides:
20
4
area=80
perimeter=48
```

6. Write a program to compute the simple interest.

IPO:
Input-Number says to compute the simple interest
Process- Computing the simple interest and output the variable.

Output-output the variable.

Program:

```c
#include<stdio.h>
int main()
{
    float p,r,t,si;
    printf("enter principle amount:");
    scanf("%f",&p);
    printf("enter rate of interest:");
    scanf("%f",&r);
    printf("enter time period:");
    scanf("%f",&t);
    si=(p*r*t)/100;
    printf("simple interest:%.2f\n ",si);
    return 0;
}
```

Output:

```
enter principle amount:20000

enter rate of interest:9

enter time period:2

simple interest:3600.00
```

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

IPO:
Input-Number says to convert temperature from Celsius to Fahrenheit.
Process- convert temperature from Celsius to Fahrenheit and output the variable.
Output-output the variable.

Program:

```c
#include<stdio.h>
int main()
{
  float celsius,fahrenheit;
   printf("enter temperature in celsius:");
   scanf("%f",&celsius);
   fahrenheit=(celsius*9.0/5.0)+32;
   printf("Temperature in fahrenheit:%.2f\n",fahrenheit);
   return 0;
}
```

Output:

```
enter temperature in celsius:40.00
Temperature in fahrenheit:104.00
```

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

 IPO:
Input-Number says to find the quotient and remainder of two integers.
Process- To find the quotient and remainder of two integers and output the variable.
Output-output the variable.

Program:

```c
#include<stdio.h>
int main()
{
  int num1,num2,q,r;
   printf("\n enter the number 1:");
   scanf("\n%d",&num1);
   printf("\n enter the number 2:");
   scanf("\n%d",&num2);
   q=num1/num2;
   r=num1%num2;
   printf("\n the quotient is %d",q);
   printf("\n the remainder is %d",r);
   return 0;
```

}

Output:

enter the number 1:20

enter the number 2:5

the quotient is 4

the remainder is 0

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

IPO:
Input-Number says to check whether a number is even or odd
Process- To check whether a number is even or odd and output the variable.
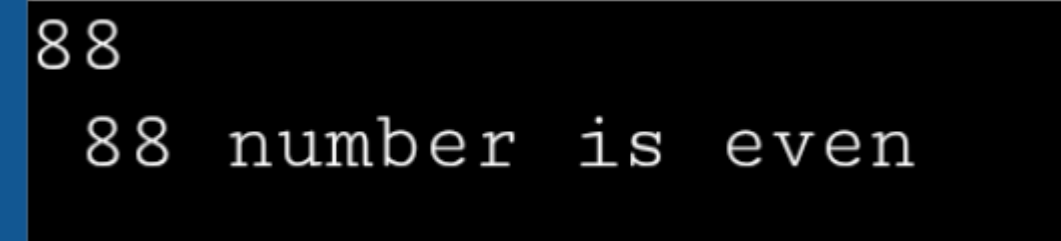Output-output the variable.

Program:

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

```
    }
    return 0;
}
```

Output:

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

IPO:

    Input-Number says to calculate the square and cube of a number.
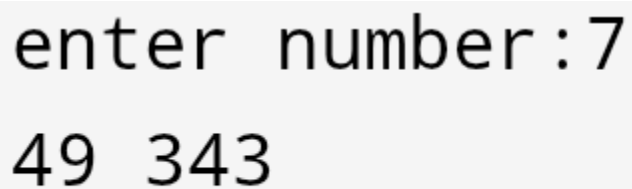   Process- To calculate the square and cube of a number and output the variable.
Output-output the variable.

Program:

```c
#include<stdio.h>
int main()
{
    int n,s,c;
    printf("enter number:");
    scanf("%d",&n);
    s=n*n;
    c=n*n*n;
    printf("%d %d",s,c);
    return 0;
}
```

Output: