

PrintF and ScanF

# Printf( )

- In C programming, printf( ) is one of the main output function. The function sends formatted **output** to the screen.
- To use printf( ) in our program, we need to include **stdio.h** header file using the #include <stdio.h> statement.
- Syntax: printf( "format string" , argument);

# Example 1

```
#include <stdio.h>
int main()
{
    printf("C Programming!");
    return 0;
}
```

Output: C Programming!

## Example 2

```
#include <stdio.h>
int main()
{
    int num = 10;
    printf("Number = %d", num);
    return 0;
}
```

Output: 10

# Example 3

```
#include <stdio.h>
int main() {
    float number1 = 13.5;
    double number2 = 12.4;
    printf("number1 = %f\n", number1);
    printf("number2 = %lf", number2);
    return 0;
}
```

Output: 13.500000 12.400000

# Example 4

```
#include <stdio.h>
int main()
{
    char chr = 'a';
    printf("character = %c.", chr);
    return 0;
}
```

Output: a.

# Output?

1. `Printf ("%d is greater than %d by value %d ", 10,8, 10-8);`
2. `Printf ("There are %d character between %c and %c!", 3, 'a', 'd');`
3. `Printf ("The value of pie is: %.5f", 3.14);`
4. `Printf ("If %d divide %d then, result will be %f",5,11, 11/5);`
5. `Printf ("%4d", 20);`
6. `Printf("the %s jumped over the %s, %d times", "cow", "moon", 2);`

# Output?

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

```
#include <stdio.h>
int main() {
    int num;
    printf("Enter an integer: ");
    scanf("%d", &num);
    if(num % 2 != 0)
        printf("%d is even.", num);
    else
        printf("%d is odd.", num);

    return 0; }
```



# Format specifiers

- There are several format specifiers-The one you use should depend on the type of the variable you wish to print out.The common ones are as follows:

Format Specifier	Type
%d	int
%c	char
%f	float
%lf	double
%s	string

To display a number in scientific notation,use %e.

To display a percentage sign,use %%

# ScanF

- In C programming, scanf( ) is one of the commonly used function to take input from the user. The scanf( ) function reads formatted **input** from the standard input such as keyboards.
- To use scanf( ) in our program, we need to include stdio.h header file using the #include <stdio.h> statement.
- Scanf ("format specifiers", arguments);

# Example 1

```
#include<stdio.h>
int main()
{
    int var;
    scanf("%d",&var);
    printf("value of var = %d",var);
    return 0;
}
```

Output: 10

# Output?

```
#include<stdio.h>
int main()
{
    float time;
    char c;
    scanf("%f%c",&time,c);
    printf("Hi! %c it's %f O'Clock
           now..",c,time);
    return 0;
}
```

```
int main()
{
    int a, b, c;
    printf("Enter the first value:");
    scanf("%d", &a);
    printf("Enter the second value:");
    scanf("%d", &b);
    c = a + b;
    printf("%d + %d = %d\n", a, b, c);
    return 0;
}
```

# Output??

```
#include <stdio.h>

int main( ) {
    int r;
    float result;
    scanf("%d", &r);
    result= 2*(22/7)*r;
    printf("Result is = %f inches",
        result);
    Return 0; }
```

```
#include<stdio.h>
int main( ) {
    int n;
    printf("%d",scanf("%d%d",
    &n,&n));
    return 0;
}
```

# Output???

```
#include<stdio.h>
int main( ) {
int n;
printf("%d",printf("%d",100));
return 0;
}
```

```
#include<stdio.h>
int main()
{
int a=5;
a=printf("King") + printf("Kong");
printf("%d",a);
return 0;
}
```