

//0/Hybrid Mode:- Both **Value** + **Address** have been passed at a time

//Contrast: Return stmt can only return 1 value

```
#include<stdio.h>
int areaperi ( int r, float *a, float *p )

{
    *a = 3.14 * r * r ;
    *p = 2 * 3.14 * r ;
}
int main( )
{
    int radius=4 ;
    float area, perimeter ;
    // printf ( "\nEnter radius of a circle " ) ;
    // scanf ( "%d", &radius ) ;

    areaperi ( radius, &area, &perimeter ) ; //Imp- Value + Address are passed

    printf ( "Area = %f", area ) ;
    printf ( "\nPerimeter = %f", perimeter ) ;
}
```

//1/ Non-Recursive Function

```
#include<stdio.h>
int    factorial ( int x )
{
    int f = 1, i ;
    for ( i = x ; i >= 1 ; i-- ) //n(n-1)*(n-2)*(n-3)*...(n-n)
        f = f * i ;
    return ( f ) ;
}

int main( )
{
    int a=5, fact ;

    // printf ( "\nEnter any number " ) ;
    // scanf ( "%d", &a ) ;
```

```
        fact = factorial ( a ) ;  
        printf ( "Factorial value = %d", fact ) ;  
    }
```

//2/ **Recursive Function** for Factorial problem

```
#include <stdio.h>  
int rec ( int x )  
{  
    int f ;  
    if ( x == 1 )  
        return ( 1 ) ;  
  
    else  
        f = x * rec ( x - 1 ) ; //Recursion: Calling the same function repeatedly  
        return ( f ) ;  
}  
int main( )  
{  
    int a=1, fact ;  
  
    // printf ( "\nEnter any number " ) ;  
    // scanf ( "%d", &a ) ;  
    fact = rec ( a ) ;  
    printf ( "Factorial value = %d", fact ) ;  
}
```