

1 Factorial (Function type 4 using Pointer)

```
#include <stdio.h>
int factorial(int*);
void main()
{
    int f,ans ;
    printf("\n Enter the number : ");
    scanf("%d",&f);
    ans = factorial(&f);
    printf("\n %d Factorial is : %d\n",f,ans);
}
int factorial(int* a)
{
    int f;
    int i=1;
    for(f=1;i<= *a;i++)
    {
        f = f*i;
    }
    return f;
}
```

2 prime number (Function type 3 and 4 using Pointer)

// using type 3 function Prime Number

```
#include<stdio.h>
void prime(int*);
void main()
{
    int num;

    printf("\n Enter the number : " );
    scanf("%d",&num);
    prime(&num);

}

void prime(int* num )
{
    int i ;
    int c = 0;
```

```

        for (i = 1; i <= *num; i++) {
            if (*num % i == 0) {
                c++;
            }
        }

        if (c == 2) {
            printf("Its is a Prime number and value is : %d ", *num );
        }
        else {
            printf("Its is not a Prime number and value is : %d", *num);
        }

    }

```

// using type 4 function Prime Number

```

#include<stdio.h>
int prime(int *);
void main()
{
    int num;
    int ans ;
    printf("\n Enter the number : " );
    scanf("%d",&num);
    ans = prime(&num);
    printf(" and number is : %d ",ans);
}

```

```

int prime(int* num )
{
    int i ;
    int c = 0;

    for (i = 1; i <= *num; i++) {
        if (*num % i == 0) {
            c++;
        }
    }
}

```

```

if (c == 2) {
    printf("Its is a Prime number");
}

```

```

}
else {
printf("Its is not a Prime number");
}
return *num;
}

```

3 sum of digit (Function type 4 using Pointer);

```

#include<stdio.h>
int reverse(int*);
int sumofdigit(int*);
int both(int*);
void main()
{
int a;
int num;
int r ;
int sum;
int nu ;
int sa;
int ra;
int ba;
printf("Choose any one\n 1 Sum of digit \n 2 Reverse the number \n 3 Both \ntype here: " );
scanf("%d",&a);
if(a==1){
printf("you choose sum of digit the number\n");
printf("enter the number here:");
scanf("%d",&num);
sa =sumofdigit(&num);
printf("%d\n ",sa);
}else{
if(a==2){
printf("you choose Reverse the number\n");
printf("Enetr the number is here : ");
scanf("%d",&nu);
ra = reverse(&nu);
printf("%d\n ",ra);
}else{
if(a==3){
printf("you choose Both the number\n");
printf("Enetr the number is here : ");

```

```

scanf("%d",&num);
ba = both(&num);
printf("%d\n",ba);
}else{
printf("invalid input \n");
}
}
}
}
int sumofdigit(int* num)
{
int r ;
int sum;
for(sum=0;r = *num %10; *num = *num/10)
{
sum = sum + r;
}
printf("sum of digit is : ");
return sum;
}
int reverse(int* nu)
{
int re ;
int r ;
for(re=0;r= *nu%10; *nu = *nu/10)
{
re = re *10 + r;
}
printf("the reverse value is : ");
return re;
}
int both(int* num)
{
int sum;
int P = *num;
int r;
int reverse=0;
int rem;
for(sum = 0;r = P%10 ; P = P/10)
{
sum = sum + r ;
reverse = reverse * 10 + r;
}
}

```

```
}  
printf("sum of digit is : %d \n",sum);  
printf("reverse the number : ");  
return reverse;  
printf("\n");  
}
```