

01)

```
#include <stdio.h>
int gcf(int n1, int n2);
int main(){
    int n1, n2;
    printf("Enter first positive integer : ");
    scanf("%d", &n1);
    printf("Enter second positive integer : ");
    scanf("%d", &n2);
    printf("Greatest Common Factor of %d and %d is : %d",
        n1, n2, gcf(n1,n2));
    return 0;
}
int gcf(int n1, int n2){
    if (n2!=0)
        return gcf(n2, n1%n2);
    else
        return n1;
}
```

02)

```
#include <stdio.h>
int sum(int n);
int main(){
    int n;
    printf("Enter a positive integer : ");
    scanf("%d", &n);
    printf("Sum = %d", sum(n));
    return 0;
}
int sum(int n){
    if(n!=0)
        return n + sum(n-1);
    else
        return n;
}
```

03)

```
#include<stdio.h>
int noOfDigits(int n);
int count=0;
int main(){
    int n;
    printf("Enter the number : ");
    scanf("%d",&n);
    printf("The number of digits : %d", noOfDigits(n));
    return 0;
}
int noOfDigits(int n){
    if(n!=0){
        count++;
        noOfDigits(n/10);
    }
    return count;
}
```

04)

```
#include <stdio.h>
int stringLength(char *str);
int len=0;
int main(){
    char str[100];
    printf("Enter a string : ");
    gets(str);
    printf("Length of the string is : %d", stringLength(str));
    return 0;
}
int stringLength(char *str){
    if(*str!='\0'){
        len++;
        stringLength(++str);
    }
    else
        return len;
}
```

05)

```
#include <stdio.h>
int findPower(int base, int power);
int main(){
    int base, power, result;
    printf("Enter the base : ");
    scanf("%d", &base);
    printf("Enter the power : ");
    scanf("%d", &power);
    result = findPower(base, power);
    printf("%d^%d = %d", base, power, result);
    return 0;
}
int findPower(int base, int power){
    if (power!=0)
        return (base*findPower(base, power-1));
    else
        return 1;
}
```