1. WAP to find out factorial of a number.

```
#include<stdio.h>
int main(){
int n,fact=1;
scanf("%d",&n);
for(int i=0;i<n;i++){
    fact=fact*(i+1);
}
printf("%d",fact);
return 0;

}
```

2. Program to check whether a number is Armstrong no or not

```
#include<stdio.h>
int main(){
int n,temp,sum=0;
printf("Enter the number\n");
scanf("%d",&n);
temp=n;
while(n>0){
    int i=n%10;
    sum+=i*i*i;
    n=n/10;
}
if(sum==temp){
    printf("It is an armstrong number\n");
}else{
    printf("It is not an armstrong number\n");
}
return 0;
}
```

3. Program to print the Fib rite a C function for the following problem

```
#include<stdio.h>
int main(){
int n,first,second,third;
first=0;
second=1;
printf("How many numbers do you want to print?\n");
scanf("%d",&n);
printf("%d\n%d\n",first,second);
for(int i=0;i<n;i++){
    third=first+second;
    printf("%d\n",third);
```

```
    first=second;
    second=third;
}
return 0;
}
```

4. Take a positive integer n, print the binary representation of n.

```
#include<stdio.h>
int power(int base,int power){
    int product=1;
    if(power==0){
        return 1;
    }
    for(int i=0;i<power;i++){
        product=product*base;
    }
    return product;
}
int main(){
int n,binary=0;
printf("Enter decimal number\n");
scanf("%d",&n);
int i=0;
while(n>0){
    int bit=n%2;
    printf("%d\n",bit);
    binary=binary+bit*power(10,i);
    i++;
    n=n/2;
}
printf("%d\n",binary);
return 0;
}
```

5. Write a C program, which will print two digit numbers whose sum of both digit is multiple of seven. e.g. 16,25,34.....

```
#include<stdio.h>
#include<math.h>
int main(){
int n=10;
while(n<100){
    int sum=0;
    int temp=n;
    while(temp>0){
        sum=sum+temp%10;
```

```
        temp=temp/10;
    }
    if((sum%7)==0){
        printf("%d\n",n);
    }
    n++;
}
return 0;
}
```

6. Write a C program to display and find the sum of the series 1+11+111+....111 upto n. For eg. if n=4, the series is : 1+11+111+1111. Take the value of 'n' as input from the user.

```
#include<stdio.h>
int power(int base,int power){
    int product=1;
    if(power==0){
        return 1;
    }
    for(int i=0;i<power;i++){
        product=product*base;
    }
    return product;
}
int main(){
int n,sum=0;
scanf("%d",&n);
for(int i=0;i<n;i++){
    int num=0;
    for(int j=0;j<i+1;j++){
        num=num+power(10,j);
    }
    printf("%d+",num);
    sum=sum+num;
}
printf("\b=%d",sum);
return
```

7. Write a C program that reads a positive integer n and then prints the following pattern.

****

 ****

__*******

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________*

Where n is the number of lines.

```
#include<stdio.h>
int main(){
int n;
scanf("%d",&n);
for(int i=0;i<n;i++){
    for(int j=0;j<i;j++){
        printf("_");
    }
    for(int j=n;j>i;j--){
        printf("*");
    }
    printf("\n");
}
return 0;
}
```