1. #include <stdio.h>

```
int main()
{
  int n,i;
  printf("enter the integer:");
  scanf("%d",&n);
  if (n<0)
    printf("error!factorial of a negative number doesn't exist");
  else{
    for (i=1;i <=n; ++1)
      {
        fact += 1;
      }
    printf("factorial of %d = %llu",n,fact);
    return 0;
      }
}
```

2. #include <stdio.h>

```
int main()
{
  int i = 1, n, fact = 1;
  printf("enter the number: ");
  scanf("%d, &n):
    do {
    fact = fact * i;
    i++;
    } while(i <= n);
    printf("factorial of %d is %d\n",n,fact);
}
```

3. #include <stdio.h>

```
int main()
{
  int n,sum=0;
  printf("enter the number");
  scanf("%d",&n);
  while(n!=0)
  {
    sum=sum+(n%10);
```

```
    n= n/10;
  }
  printf("sum of digits is %d",sum);
}
```

4.
```
#include <stdio.h>
int main()
{
  int i, num, n, count;
  printf("enter the range: ");
  scanf("%d", &n);
  printf("the prime numbers in between the range 1 to %d:",n);
  for(num = 1;num<=n;num++)
    {
      count = 0;
      for(i=2;i<=num/2;i++)
        {
          if(num%i==0)
          {
            count++;
            break;
          }
        }
      if(count==0 && num!= 1)
        printf("%d ",num);
    }
}
```

5.
```
#include <stdio.h>
int main()
{
  int num,originalNum, remainder, result = 0;
  printf("enter a three digit integer; ");
  scanf("%d",&num);
  original Num = num;
  while (originalNum != 0){
    remainder = originalNum % 10;
    result += remainder * remainder * remainder;
    originalNum /= 10;
  }
  if (result == num)
```

```
    printf("%d is an armstrong number",num);
  else
    printf("%d is not an armstrong number",num);
  return 0;
}
```

6.
```
#include<stdio.h>
int main()
{
    int a,b,c;
    printf("enter the value of a and b");
    scanf( "%d%d" ,&a,&b);
    c=a+b;
    printf("the sum of a and b is %d",c);
    return 0;
}
```

7.
```
#include<stdio.h>
int main()
{
    int n, i, flag = 0;
    printf("enter a positive integer; ");
    scanf(" %d", &n);
    if (n == 0 || n == 1)
        flag = 1;
    for (i = 2; i <= n / 2; ++i)
      {
        if (n % i == 0)
        {
            flag = 1;
            break;
        }
      }
    if (flag == 0)
        printf(" %d is a prime number.", n);
    else
        printf(" %d is not a prime number.", n);
}
```