```
#include <stdio.h>
int main()
{
  int i,s;
  for(i = 1; i<=10; i++){
   s+=i;
  }
  printf("the sum is = %d",s);
  return 0;
}
Output:
the sum is = 55
...Program finished with exit code 0
Press ENTER to exit console.
#include <stdio.h>
int main()
{
  int i,s=1;
  printf("enter the number u want the multiplication table for:\n");
  scanf("%d",&i);
  while(s<=10)
  {
    printf("%d x %d=%d\n",i,s,(s*i));
    ++s;
  }
  return 0;
}
Output:
```

```
enter the number u want the multiplication table for:
  x 1=7
  x 2=14
   x 3=21
   x 4=28
   x 5=35
     6=42
   x 7=49
  x 8=56
     9=63
   x 10=70
#include <stdio.h>
int main()
{
  int a,n=1,s;
  printf("enter the upper limit:\n");
  scanf("%d",&a);
  if(n<=a)
    do{
      if(n%2!=0){
        printf("%d ",n);
        s+=n;
      }
      ++n;
    }while(n<=a);</pre>
  printf("\nthe sum of odd numbers form 1 to %d range is = %d",a,s);
  return 0;
}
        enter the upper limit:
        the sum of odd numbers form 1 to 6 \, range is = 9 \,
         ...Program finished with exit code 0
        Press ENTER to exit console.
Output:
```

```
#include <stdio.h>
int main()
{
  int i,j;
  for(i=1; i<=4;i++){
    for(j=1;j<=i;j++){
       printf("*");
    }
    printf("\n");
  }
  return 0;
}
Output:
#include <stdio.h>
int main()
{
  int i=1,j=1,a=1;
  while(i<=4){
    j=1;
    while(j<=i){
       printf("%d",a++);
      j++;
    }
    i++;
```

```
printf("\n");
  }
  return 0;
}
Output:
1
23
456
78910
#include <stdio.h>
int main()
{
  int i=1,j=1,a=1,f,x=3;
  do
  {
    f=1;
    do{
      printf(" ");
      f++;
    }while(f<=x);</pre>
    j=1;
    do
      printf("%d ",a++);
      j++;
    }while(j<=i);</pre>
    i++;
    printf("\n");
```

```
--x;
  }while(i<=4);</pre>
  return 0;
}
Output
   2 3
    8 9 10
#include <stdio.h>
int main()
{
     int a=5,k;
 int arr[a][a];
for (int line = 0; line < a; line++)
{
  for (k = 1; k <= a - line; k++)
     printf(" ");
  for (int i = 0; i <= line; i++)
  {
  if (line == i | | i == 0)
     arr[line][i] = 1;
  else
     arr[line][i] = arr[line-1][i-1] + arr[line-1][i];
```

```
printf("%4d ", arr[line][i]);
  }
  printf("\n");
 }
  return 0;
}Output:
                 2 1
                   3
 ...Program finished with exit code 0
Press ENTER to exit console.
#include <stdio.h>
int main()
{
  int i,a=0,b=1,c,r;
  printf("enter the range:\n");
  scanf("%d",&r);
  printf("%d %d",a,b);
  for(i=1;i<=r;i++){
    c=a+b;
   printf(" %d",c);
    a=b;
    b=c;
  }
  return 0;
}
Output:
```

```
enter the range:
10
0 1 1 2 3 5 8 13 21 34 55 89
 ...Program finished with exit code 0
Press ENTER to exit console.
#include <stdio.h>
int main()
{
  int i,c,n;
  printf("enter the number to check for:\n");
  scanf("%d",&n);
  i=1;
  while(i<n){
    if(n % i==0){
     c= c+i;
   }
    ++i;
  }
  if(c==n){
    printf("the entered number %d is a perfect number",n);
  }
  else{
    printf("the entered number is not a perfect number");
  }
  return 0;
}
```

## Output:

```
enter the number to check for:
the entered number 6 is a perfect number
...Program finished with exit code 0
Press ENTER to exit console.
#include <stdio.h>
#include<math.h>
int main()
{
  int i,s,a,n[10],g;
  printf("enter the range(10) of number to check for armstrong numbers:\n");
  i=0;
  while(i<10){
  scanf("%d",&n[i]);++i;
  }
  i=0;
  while(i<10){
   g=n[i];
   s=0;
  while(g!=0){
   a=g%10;
   s=s+pow(a,3);
   g=g/10;
  }
  if(n[i]==s){
    printf("\nthe number %d is a armstrong number",n[i]);
  }else{
```

```
printf("\nthe number %d is not a armstrong number",n[i]);
 }
 ++i;
 }
 return 0;
}
Output:
enter the range(10) of number to check for armstrong numbers:
3
153
56
the number 1 is a armstrong number
the number 2 is not a armstrong number
the number 3 is not a armstrong number
the number 4 is not a armstrong number
the number 153 is a armstrong number
the number 2 is not a armstrong number
the number 3 is not a armstrong number
the number 4 is not a armstrong number
the number 56 is not a armstrong number
the number 7 is not a armstrong number
 ...Program finished with exit code 0
#include <stdio.h>
int main()
{
 int n,i=1,c;
```

```
printf("enter the number for prime number check:\n");
  scanf("%d",&n);
  while(i \le n){
   if(n%i==0){
     C++;
    }
    i++;
  }
    if(c==2){
      printf("the entered number is a prime number");
    }else{
      printf("the entered numver is not a prime number");
   }
  return 0;
}
Output:
enter the number for prime number check:
the entered numver is not a prime number
 ...Program finished with exit code 0
Press ENTER to exit console.
#include <stdio.h>
int main()
{
  int n,a,s=0;
  printf("enter the number to be reversed :\n");
  scanf("%d",&n);
```

```
do{
   a=n%10;
   s=(s*10)+a;
    n=n/10;
  }while(n!=0);
  printf("the reversed number is: %d",s);
  return 0;
}
Output:
enter the number to be reversed :
245
the reversed number is: 542
 ...Program finished with exit code 0
Press ENTER to exit console.
#include <stdio.h>
int main()
{
  int i,n;
  int s,s1;
  printf("enter the number of the sum range:\n");
  scanf("%d",&n);
  for(i=1;i<=n;i++){
   s=(s*10)+9;
   printf("%d +",s);
   s1=s1+s;
  }
  printf("the sum is = %d",s1);
  return 0;
```

```
Output:
enter
5
9 +99
```

```
enter the number of the sum range:
9 + 99 + 999 + 99999 + the sum is = 111105
 ...Program finished with exit code 0
Press ENTER to exit console.
#include <stdio.h>
#include <math.h>
int fact();
int main()
{
  int i= 0,n,s,x,x1,c;
  printf("enter the number of the sum range and the coefficient:\n");
  scanf("%d %d",&n,&x1);
  while(i \le n){
   if(i%2==0){
     x=(pow(x1,i))/fact(i);++c;
   }
   if(c%2!=0){
   s=s+x;
   }
    else{
      s=s-x;
    }
    ++i;
  }
  printf("the sum is = %d",s);
```

```
}
int fact(int a){
  int fact,i;
  if(a==0)
  return 1;
for (i = 1; i <= a; ++i) {
      fact *= i;
    return fact;
}
enter the number of the sum range and the coefficient:
5
2
the sum is = 32769
#include <stdio.h>
#include <math.h>
int fact();
int main()
{
  int i= 0,n,s,x,x1,c;
  printf("enter the number of the sum range and the coefficient:\n");
  scanf("%d %d",&n,&x1);
  do{
    if(i%2!=0){
      x=pow(x1,i);++c;
    }
    if(c%2!=0){
    s=s+x;
    }
```

return 0;

```
else{
    s=s-x;
}
++i;
}while(i<=n);
printf("the sum is = %d",s);

return 0;
}
Output:
enter the number of the sum range and the coefficient
10
2
the sum is = 33587
...Program finished with exit code 0
Press ENTER to exit console.</pre>
```