1) calculate the sum of numbers (10 numbers max) & If the user enters a negative number, the loop terminates.

```
#include <stdio.h>

int main() {
  int i;
  double number, sum = 0.0;

  for (i = 1; i <= 10; ++i) {
    printf("Enter a n%d: ", i);
    scanf("%lf", &number);


    if (number < 0.0) {
      break;
    }

    sum += number; // sum = sum + number;
  }

  printf("Sum = %.2lf", sum);

  return 0;
}
```

```
Output: Enter a n1: 6
Enter a n2: 1
Enter a n3: 2
Enter a n4: 3
Enter a n5: -4
Sum = 12.00
```

2) calculate the sum of numbers (10 numbers max) & If the user enters a negative number, it's not added to the result.

```
#include<stdio.h>
int main()
{
  int number, i, sum=0;
```

```
 for(i=0;i<=10;i++)
 {

  printf("Enter number: ");
  scanf("%d",&number);

  if( number<0 )
   continue;

  sum += number;
 }

 printf("Sum=%d",sum);

 return 0;
}
```

```
Output: Enter number: 1
Enter number: 2
Enter number: 3
Enter number: 4
Enter number: 5
Enter number: 6
Enter number: -7
Enter number: 8
Enter number: 9
Enter number: -2
Enter number: -5
sum=38
```

3) take input from the user until he/she enters zero. (Using Break)

```
#include <stdio.h>
int main ()
{
 int a;
 while (1)
 {
  printf("enter the number:");
```

```
  scanf("%d", &a);
  if ( a == 0 )
    break;
 }
return 0;
}
```

Output: enter the number:5
enter the number:8
enter the number:0

4) check whether the given number is prime or not.(Using Break)

```
#include <stdio.h>
int main() {
  int num = 33, flag = 0;
  for(int i=2 ; i < num/2 ; i++) {
    if(num%i == 0) {
      printf("%d is not a prime number", num);
      flag = 1;
      break;
    }
  }
  if(flag == 0) {
    printf("%d is a prime number", num);
  }
return 0;
}
```

Output: 33 is not a prime number

5) print sum of odd numbers between 0 and 10. (Using Continue)

```
#include <stdio.h>
int main() {
   int n, i,sum;
   for(i=0;i<=10;i++)
   {
      printf("Enter the value for n:");
      scanf("%d",&n);
      if(n%2==1)
```

```
        {
            sum=sum+n;
            printf("Sum:%d\n",sum);
            continue;
        }
        printf("The total sum is:%d\n",sum);
    }
    return 0;
}
```

Output: Enter the value for n:10
The total sum is:32764

6) check whether the given number is prime or not.(Using Continue)

```
#include <stdio.h>
int main() {
    int n, i,  temp= 0;
    printf("Enter a positive integer: ");
    scanf("%d", &n);
    for (i = 2; i <= n / 2; ++i)   {
        if (n % i == 0)  {
            temp= 1;
            continue;
        }
    }

    if (n == 1)  {
        printf("1 is neither prime nor composite.");
    }
    else
    {
        if (temp == 0)
            printf("%d is a prime number.", n);
        else
            printf("%d is not a prime number.", n);
    }

    return 0;
}
```

Output: Enter a positive integer: 5
5 is a prime number

7) print all even numbers from 1 to 100. (Using Continue)

```
#include <stdio.h>
int main()
{
   int i,sum;
   printf("Even numbers between 1 to 100\n");
   for(i= 1; i<= 100; i++)
   {
      if(i%2 == 0)
      {
         printf("%d ", i);
      }
      if(i%2==0)
      {
         sum=sum+i;
         printf("Sum:%d\n",sum);
         continue;
      }
   }
      printf("The total sum is:%d\n",sum);
   return 0;
}
```

Output: Even numbers between 1 to 100
2 Sum:2
4 Sum:6
6 Sum:12
8 Sum:20
10 Sum:30
12 Sum:42
14 Sum:56
16 Sum:72
18 Sum:90
20 Sum:110
22 Sum:132

24 Sum:156
26 Sum:182
28 Sum:210
30 Sum:240
32 Sum:272
34 Sum:306
36 Sum:342
38 Sum:380
40 Sum:420
42 Sum:462
44 Sum:506
46 Sum:552
48 Sum:600
50 Sum:650
52 Sum:702
54 Sum:756
56 Sum:812
58 Sum:870
60 Sum:930
62 Sum:992
64 Sum:1056
66 Sum:1122
68 Sum:1190
70 Sum:1260
72 Sum:1332
74 Sum:1406
76 Sum:1482
78 Sum:1560
80 Sum:1640
82 Sum:1722
84 Sum:1806
86 Sum:1892
88 Sum:1980
90 Sum:2070
92 Sum:2162
94 Sum:2256
96 Sum:2352
98 Sum:2450
100 Sum:2550
The total sum is:2550

8) print numbers from 1 to 10 using goto statement. (Using goto)

```
#include <stdio.h>
int main(){
        int n;
        START:
        printf("%d ",n);
        n++;
        if(n<=10)
                goto START;
        return 0;
}
```

Output: 0 1 2 3 4 5 6 7 8 9 10

9) Program to calculate the sum and average of positive numbers, If the user enters a negative number, the sum and average are displayed. (Using goto)

```
#include <stdio.h>

int main() {

  const int maxInput = 100;
  int i;
  double number, average, sum = 0.0;

  for (i = 1; i <= maxInput; ++i) {
    printf("%d. Enter a number: ", i);
    scanf("%lf", &number);


    if (number < 0.0) {
      goto jump;
    }
    sum += number;
  }

jump:
  average = sum / (i - 1);
```

```
    printf("Sum = %.2f\n", sum);
    printf("Average = %.2f", average);

    return 0;
}
```

Output: 1. Enter a number: 6
2. Enter a number: 7
3. Enter a number: -2
Sum = 13.00
Average = 6.50

10) check if a number is even or not. (Using goto)

```
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int num;

    printf("Enter a number\n");
    scanf("%d", &num);

    if (num % 2 == 0)
        goto even;
    else
        goto odd;

even:
    printf("%d is even\n", num);
    exit(0);
odd:
    printf("%d is odd\n", num);
return 0;
}
```

Output: Enter a number
13
13 is odd