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 i,sum=0;
for(i=0;i<10;i++){
   if(i%2==0)
   continue;
   sum+=i;
```

```
}
printf("sum=%d",sum);
return 0;
}
```

Output: sum=25

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