16.Write a Python program to find the sum of digits of a given number.

Code:

```
n=int(input("Enter a number:"))
s=0
while(n>0):
    d=n%10;
    s=d+s
    n=n//10
print("sum of digit:",s)
```

output

```
Enter a number:78
sum of digit: 15
```

17.Write a Python program to find the product of digits of a given number.

Code:

```
n=int(input("Enter a number:"))
p=1
while(n>0):
    d=n%10;
    p=d*p
    n=n//10
print("Product:",p)
```

output

```
Enter a number:87
Product: 56
```

18.Write a Python program to find those numbers which are divisible by 6 and multiples of 5, between 1001 and 2999.

Code:

```
Print("numbers which are divisible by 6 and multiples of 5, between 1001 and 2999.")
for i in range(1001,2999):
    if(i%6==0 and i%5==0):
        print(i)
```

output

```
numbers which are divisible by 6 and multiples of 5, between 1001 and 2999.
1020
1050
1080
1110
1140
1170
1200
1230
1260
1290
1320
1350
1380
1410
1440
1470
1500
1530
1560
1590
1620
1650
1680
1710
1740
1770
1800
1830
1860
1890
1920
1950
1980
2010
2040
2070
2100
2130
2160
2190
2220
2250
2280
2310
2340
2370
2400
2430
2460
2490
2520
2550
2580
2610
2640
2670
2700
2730
2760
2790
2820
2850
2880
2910
2940
2970
```

19.Write a Python program to construct the following pattern, using a nested for loop.

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

Code:

```
for i in range(6):
    for j in range(i):
        print('* ', end="")
    print()
for i in reversed(range(5)):
    for j in range(i):
        print('* ', end="")
    print()
```

output

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

20.Write a Python program that iterates the integers from 1 to 100. For multiples of three print "Be" instead of the number and for multiples of five print "Happy". For numbers that are multiples of three and five, print "BeHappy".

Code:

```
for i in range(1,100):
    if(i%3==0 and i%5==0):
        print("BeHappy")
    elif(i%3==0):
        print("Be")
    elif(i%5==0):
        print("Happy")
    else:
        print(i)
```

output

```
1
2
Be
4
Happy
Be
7
8
Be
Happy
11
Be
13
14
BeHappy
16
17
Be
19
Happy
Be
22
23
Be
Happy
26
Be
28
29
BeHappy
```

31
32
Be
34
Happy
Be
37
38
Be
Happy
41
Be
43
44
BeHappy
46
47
Be
49
Happy
Be
52
53
Be
Happy
56
Be
58
59
BeHappy
61
62
Be
64
Happy
Be
67
68
Be
Happy
71
Be
73
74
BeHappy
76
77
Be
79
Happy

Be
82
83
Be
Happy
86
Be
88
89
BeHappy
91
92
Be
94
Happy
Be
97
98
Be

21.Write a Python program that accepts a sequence of comma separated 4 digit binary numbers as its input. The program will print the numbers that are divisible by 2 in a comma separated sequence.

Code:

```
num= input("Enter comma separated 4 digit binary numbers: ").split(',')
print("The numbers divisible by 2 are:")
for i in num:
    n=int(i,2)
    if(n%2==0):
        print("Binary value:",i)
```

Output:

```
Enter comma separated 4 digit binary numbers: 1001,1010,0011
The numbers divisible by 2 are:
Binary value: 1010
```

22.Write a Python program to get the largest number from a list.

Code:

```
num =[ 1,2,3,4,5,6]
largest = num[0]
for i in num:
    if i>largest:
        largest=i
print("largest number from a list:",largest)
```

Output

```
largest number from a list: 6
```