September 16

1. Write a program for the Fibonacci series using a while loop

0 1 1 2 3 5 8 13 21 34

CODE:

```
a = 5
b = 7
print(a,b)
a,b = b,a
print(a,b)
5 7 7 5
```

CODE:

```
a,b = 0,1 i = 1
while(i<=10):
 print(a)
s = a+b
a = b
b = s
 i = i+1
```

OUTPUT:

```
0 1
1
2
```

3

5

8

13 21

34

2. Write a program to calculate the sum of digits without functions using a while

loop. 257 = 2+5+7 = 14 CODE:

```
num = int(input("enter a value: "))
sum = 0 while(num>0):    digit =
num%10    sum = sum + digit
num = num//10 print(sum)
```


OUTPUT:

enter a value: 1234

10

EXPLANATION:

num = 257

sum = 0 257>0

257%10=7

0+7=7

257//10=25

num = 25 sum

= 7

25**%**10 = 5

7+5=12

25//10=2

```
for i in range(1,11,1):
    for j in range(1,11,1):
        print(i*j,end="\t") # end="\t" is used to print line in horinztail
    print()
```

2	4	6	8	10	12	14	16	18	20
3	6	9	12	15	18	21	24	27	30
4	8	12	16	20	24	28	32	36	40
5	10	15	20	25	30	35	40	45	50
6	12	18	24	30	36	42	48	54	60
7	14	21	28	35	42	49	56	63	70
8	16	24	32	40	48	56	64	72	80
9	18	27	36	45	54	63	72	81	90
10	20	30	40	50	60	70	80	90	100

```python
for i in range(1,6,1):
    for j in range(1,6,1):
        if((i*j)%2==0):
            print(i*j,end="\t")
        else:
            print(" ",end="\t")
    else:
        print()
```

OUTPUT

```
        2           4
2       4       6       8       10
        6           12
4       8       12      16      20
        10          20
```