Loops

(1)

Abdul

Loop!

```
n=5
while (n>0):        } 5 4 3 2 1
    pt(n)
    n=n-1
```

↳ Multiple of "3"

3*1=3
6

```
n=3
i=1
while i<=10:
    pf(f'{n} {i} = {n*i}')
    i=i+1 ✓
```

b. digits of number

```
n=2546
#r= n%10
#n= n//10
sum=0
while (n>0):
    sum = sum + n%10
    n = n//10
```

C. Reverse of number

```
n=1257
rev=0
while (n>0):
    rev= rev*10 + n%10
    n= n//10
if (n==rev):
    pt("palindrom")
```

d.

```
i=0
sum=0
n=5
while(i<n):
    i=i+1
    sum=sum+i
```

e. Max/min

```
n=5
i=0
max=float('-Inf')

while(i<n):
    i=i+1
    if[m
    num=int(eval( )
    if (num>max):
        max=num
    if (num<min):
        min=num
```

break

```
i=0
while True:
    i=i+1
    if i==5:
        pt(i)
        break
```

```
i=0
while(True):
    i=i+1
    if (i>5):
        break
    pt(i)
```

1, 2, 3, 4, 5

→ i=0

```
while(i<10):
    i=i+1
    if (i%3==0):
        continue
    pt(i)
```

1, 2, 4, 5, 7, 8, 10

→ i=0

```
while(i<=5):
    i=i+1
    pt(i)
else: pt('Loop normal')
```

1 2 3 4 5 6

Loop normal

→ i=0

```
while(i<5):
    i=i+1
    pt(i)
    if i==3:
        break
else: pt("Loop normal")
```

1 2 3

range :-

a. range(5) # 0 1 2 3 4
b. range(1,5) # 1 2 3 4
c. range(6,11) # 6, 7, 8, 9, 10
d. (0,10,2) # 0, 2, 4, 6, 8
e. (-5,-1) # -5, -4, -3, -2
f. (-2,3) # -2, -1, 0, 1, 2
g. (10,5,-1) # 10, 9, 8, 7, 6

LOOP

```
for i in range(5):
    pt(i, end=" ")
```
0 1 2 3 4

```
s1="python"
for i in s1:
    pt(i, end=" ")
```
python

```
for i in range(len(s1)):
    pt(s1[i])
```
python

→ sum

↳ fact

```
n=5
sum=0
for i in range(1, n+1):
    sum=sum+i
```

```
fact=1
n=5
for i in range(1,n+1):
    fact=fact*i
```

↳ fib series

```
n1=0
n2=1
n=8
pt(n1)
pt(n2)
for i in range(n+1):
    n3=n+n2
    pt(n3)
    n1=n2
    n2=n3
```

↳ for i in range(0,10):
    pass

↳ factors

```
i=1
count=0
for i in range(1,n+1):
    if n%i==0:
        count=count+1
if(count==2):
    pt("prime")
```

↳
```
n=int(eval(input("")))
for i in range(n+1):
    count=0
    for j in range(1,i+1):
        if(i%j==0):
            count=count+1
    if(count==2):
        pt(i,end=" ")
```

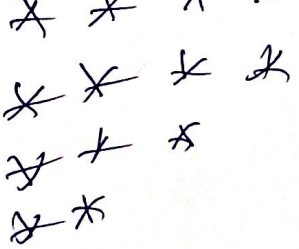
Loop 3

```
n=5
for i in range(1, n+1):
    for j in range(1, i+1):
        pt("*", end=" ")
    pt("\n")
```

↳ n=5

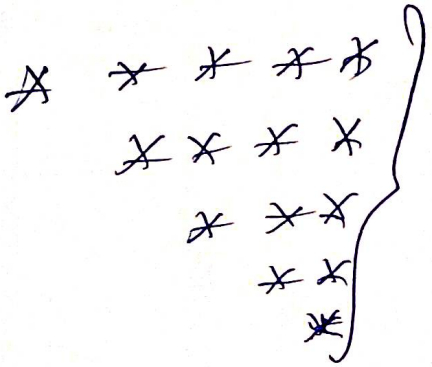
```
for i in range(n, 0, -1):
    for j in range(i):
        pt("*", end=" ")
    pt("\n")
```

```
pt("\n")
```



↳ n=5

```
for i in range(n, 0, -1):
    for s in range(1, n-i+1):
        pt(" ", end=" ")
    for j in range(i):
        pt("*", end=" ")
    pt("\n")
```



matchCase

```
day = 4
match day:
    case 1:
        pt("Monday")

    case 7:
        pt("Sunday")
```