PSC on loops

Sum of series

N = 5 X = 2

$1 + x + x*x + x*x*x + x*x*x*x$

1 2 3 4 5

$1 + x + x^2 + x^3 + x^4 \Rightarrow 1 + 2 + 2^2 + 2^3 + 2^4 \Rightarrow$ value

o/p

N = 4 X = 3

$1 + x + x*x + x*x*x$

1 2 3 4

$1 + x + x^2 + x^3 \Rightarrow 1 + 3 + 3^2 + 3^3 \Rightarrow$ o/p

$N = 3 \quad X = 2$

$\Rightarrow 1 + x + x^2$

$\Rightarrow x^0 + x^1 + x^2$

$N = 5 \quad X = 4$

$\Rightarrow 1 + x + x^2 + x^3 + x^4$

$\Rightarrow x^0 + x^1 + x^2 + x^3 + x^4$

$2^0 \Rightarrow 1$

$-1^0 \Rightarrow 1$

$789^0 \Rightarrow 1$

$2^1 = 2$

$-1^1 = -1$

$3^1 = 3$

$x^1 = x$

$N = 3 \quad X = 2$

$\Rightarrow 1 + x + x^2$

$2^0 + 2^1 \quad \Rightarrow x^0 + x^1 + x^2$

power = $0 \rightarrow N-1$

Step = 1 power = power + 1

$N = 5 \quad X = 4$

$\Rightarrow 1 + x + x^2 + x^3 + x^4$

$\Rightarrow x^0 + x^1 + x^2 + x^3 + x^4$ power = $0 \rightarrow N-1$

power = 0 1 2

X = 2

sum = 0 1 3 7

power <= N-1

2 <= 2 → T

p = p + 1

N = 3 X = 2

a^b

a**b

2^3

2**3

→ sum = sum + X ** power

= 0 + 2 ** 0

sum = 1

$2^0 \rightarrow 1$

$2^1 \rightarrow 2$

→ sum = sum + X ** power

= 1 + 2 ** 1

= 1 + 2

sum = 3

sum = 3 + 2 ** 2

= 3 + 4

sum = 7

```
power = 0        sum = 0

while (power <= N-1):
    sum = sum + X ** power
    power = power + 1

print(sum)
```

Sum of series

```
def sumOfSeries(N, X):
    if N <= 0 or X <= 0:
        print(-1)
    else:
        s = 0
        power = 0
        while power < N:
            s = s + X ** power
            power = power + 1
        print(s)
```

Sum Related Odd Problem

N = 5

→ [1, 2, 3, 4, 5]

1 + 3 + 5 ⇒ 9 o/p

Sum Related Odd Problem

sum = 1 4 9

N = 5

```
i = 1          sum = 0
while i <= N :
    if i % 2 == 1 :
        sum = sum + i
    i = i + 1
print(sum)
```

1

3

5

Even Collection

min = 5 max = 15

5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15

6 + 8 + 10 + 12 + 14 ⇒ o/p

Even Collection

start = 14 end = 19 + 1

step = 1

min = 14 max = 19

{ 14, 15, 16, 17, 18, 19 }

sum = 0 14 30 48

if i % 2 == 0: → Even

sum = sum + i

30 + 18

min = 14 max = 19

for

```
sum = 0
for h in range(min, max+1, 1):
    if h % 2 == 0:
        sum += h
print(sum)
```

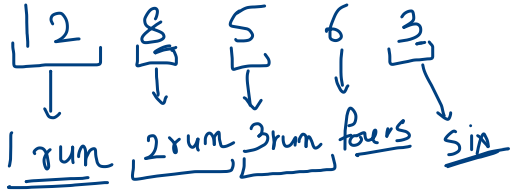
while

```
sum = 0
i = min
while i <= max:
    if i % 2 == 0:
        sum += i
    i = i + 1
sum
```

Even Collection

```
def evenCollection(max, min):
    s = 0
    for i in range(min, max+1, 1):
        if i % 2 == 0:
            s = s + i
    print(s)
```

Cricket Score



12 * 1 + 8 * 2 + 5 * 3 + 6 * 4 + 3 * 6 ⇒ total score
85

Thank you