while loops

Syntactically different from for-loop.

```
for (int i=0; i<=10; i++) {
    - - - -
}
```

```
Initializ^n
while ( exit condition check) {
    operation
}
```

Ex :

```
int i=0;
while (i<=10) {
    sout(i);
    i++;
}
```

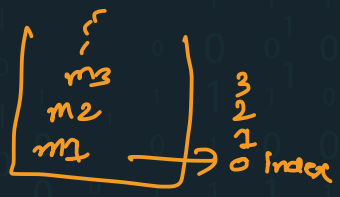
Problem :- Print the series

1, 2, 5, 6, 9, 10, - - - 50

```
int x=1;                    ⟶ Initializ^n.
while (x < 50) {            ⟶ Exit condn check
    if (x%2 ==0)
        x+=3;
    else
        x+=1;
}
```

```
for (int i=1; i<=50; i++) {
    if(i%2==0)
        i+=3;
    else
        i++;
}
```

Problem :- Given marks of n students. If any student's marks is $>= 33$ → print Pass else print fail




```
int i=0;
while (i<n) {
    if ( bucket[i] >= 33)
        SOUT ("Pass")
    else
        SOUT ("FAIL");
    i++;
}
```

Problem : 3 integer inputs : N, K, L

Print the series N, N-K, N-2K, --- where the last value should be just greater than equal to L.

(N, N-K, N-2K -- L)

N=10
K=2
L=0

n, k, l

```
1.) int x=n;
2.) while (x>=l) {
3.)     SOUT (x);
4.)     x=x-k;
5.) }
```

I^st : 10
x = 10-2

II^nd : 8
x = (10-2)-2 = 10-2*2

III rd item : 6

$x = (10-2-2)-2$

$\Leftrightarrow 10-3*2$

Geekster

Try in HW :

1. on line-4, Instead of assigning $x-K$ to x i.e; $x=x-K$ take another variable say y and do $y=x-K$.

2. Solve problems from Page-12 on hackerrank