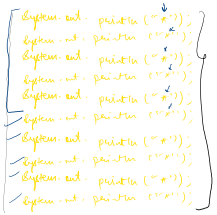


```
System.out.println("*");
System.out.println("*");
System.out.println("*");
System.out.println("*");
System.out.println("*");
System.out.println("*");
System.out.println("*");
System.out.println("*");
System.out.println("*");
System.out.println("*");
```

Same work

loops –

↳ same type of work again and again.

↳ ① for

② while

③ do-while.

10 times → 100 times.

problem → sol^n

why loop?

① Syntax

for (initialization ; condition ; increment/decrement) → for(int i=1; i<=10; i++) {

// operation / execute → System.out.println("*");

ex → "*" → 10 times.

initialization → point from where you want to start the loop.

i=1

condition → till which pt. you want to run the loop.

i<=10; i==10 ✗

increment / decrement → i=1; i=2, i=3, i=4, i=5, i=6, i=7, i=8, i=9, i=10

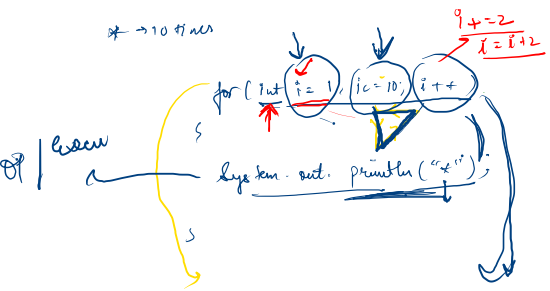
i++; → i = i+1 = i+=1

i<=10

1<=10
2<=10
3<=10
4<=10
5<=10
6<=10
7<=10
8<=10
9<=10
10<=10

i==10
i==10 ✗
2==10 ✗
3==10 ✗
10==10

i==10 → F



i=10; i==10; i...;
10
9
8
7
6
5
4
3
2
1

* → 10 times

i+=2
i=i+2

for (int i=1, i<=10; i++)

{

System.out.println("*");

}

OP | Exam

i+=2
i+=3

Steps:-

i=1	1<=10 → T execute.
i=2	2<=10 → T
i=3	3<=10 → T
i=4	4<=10 → T
i=5	5<=10 → T
i=6	6<=10 → T
i=7	7<=10 → T
i=8	8<=10 → T
i=9	9<=10 → T
i=10	10<=10 → T
i=11	11<=10 → F

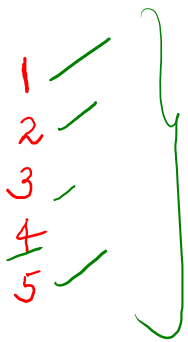
Syso("*")
Syso("*")

10 times

i=1
i=3
i=5
i=7

```java
Scanner scn=new Scanner(System.in);
int n=scn.nextInt();

for(int i=1;i<=n;i++){
    System.out.println(i);
}
```



n = 5

→ i = 1 1 <= 5 → T

i = 2 2 <= 5 → T

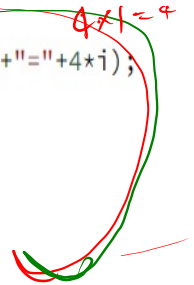
i = 3 3 <= 5 → T

i = 4 4 <= 5 → T

i = 5 5 <= 5 → T

i = 6 6 <= 5 → F

```
for(int i=1;i<=10;i++){
    System.out.println("4x"+i+"="+4*i);
}
}
```



4x1 = 4

4x2 = 8

4x3 = 12

4x4 = 16

4x5 = 20

4x6 = 24

4x7 = 28

4x8 = 32

4x9 = 36

4x10 = 40

i = 1 — 1 <= 10 → T

i = 2 — 2 <= 10 → T

i = 3 — 3 <= 10 → T

i = 4 — 4 <= 10 → T

i = 5 — 5 <= 10 → T

i = 6 — 6 <= 10 → T

i = 7 — 7 <= 10 → T

i = 8 — 8 <= 10 → T

i = 9 — 9 <= 10 → T

i = 10 — 10 <= 10 → T

i = 11 — 11 <= 10 → F