GKSTR09 Print_Range

i/p :- int n = 5 ;

o/p :- 1 2 3 4 5

dry run

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt(); //5

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

o/p

```
1
2
3
4
5
```

dry run

i = 1 , 1 <= 5 ✓✓

i = 2 , 2 <= 5 ✓✓

i = 3 , 3 <= 5 ✓✓

i = 4 , 4 <= 5 ✓✓

i = 5 , 5 <= 5 ✓✓

i = 6 , 6 <= 5 ✗

Print x to n

i/p :- int x = 5 ;
int n = 9 ; } suppose

o/p :- 5
6
7
8
9

code

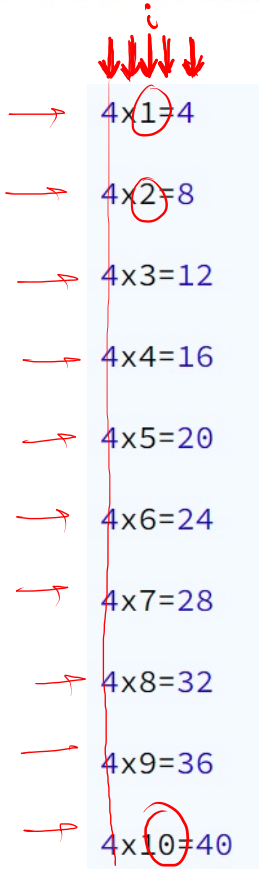
```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int x = scn.nextInt(); //5
    int n = scn.nextInt(); //10

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

o/p
5
6
7
8
9
10

dry run

i = 5 , 5 <= 10 ✓✓
i = 6 , 6 <= 10 ✓✓
i = 7 , 7 <= 10 ✓✓
i = 8 , 8 <= 10 ✓✓
i = 9 , 9 <= 10 ✓✓
i = 10 , 10 <= 10 ✓✓
i = 11 , 11 <= 10 ✗

Print table of 4



Code

```
for ( int i=1 ; i<=10; i++){
    Syso("4" + "x" + i + "=" + (4*i));
}
```

Dry run

	ans
i = 1 ,	4
i = 2 ,	8
i = 3 ,	12
⋮	
i = 10 ,	40

```java
public static void main(String[] args) {

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

}
```

Note :-

4 x i = (4 * i)

GKSTR11 Multiple Of 7

i/p :- n = 38

o/p :- 7, 14, 21, 28, 35, ~~41~~

code

```
for (int i=1; 7*i<=n; i++){
        Syso((7*i));
}
```

Note:- all 3 parameters are optional as well as independent

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt(); //38

    for (int i = 0; 7 * i <= n; i++) {
        System.out.print( (7 * i) + " " );
    }
}
```

o/p :- 0 7 14 21 28 35

7*i <= n

i = 0, 0 <= 38

i = 1, 7 <= 38

i = 2, 14 <= 38

i = 3, 21 <= 38

i = 4, 28 <= 38

i = 5, 35 <= 38

i = 6, 42 <= 38 ✗

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt(); //38

    for (int i = 0; i <= n; i += 7) {
        System.out.print(i + " ");
    }
}
```

o/p

0 7 14 21 28 35

i <= n

i = 0, 0 <= 38 ✓

i = 7, 7 <= 38 ✓

i = 14, 14 <= 38 ✓

i = 21, 21 <= 38 ✓

i = 28, 28 <= 38 ✓

i = 35, 35 <= 38 ✓

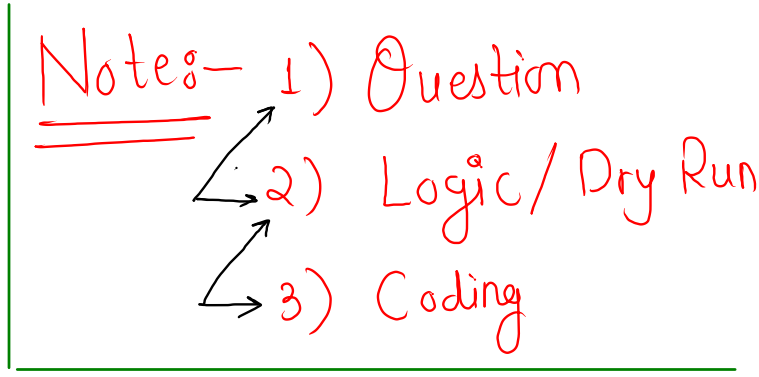
i = 42, 42 <= 38 X

Print 2,9,16...

Series :- 2, 9, 16, 23, 30, 37, ...

Code

```
public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        for (int i = 2; i <= n; i += 7) {
            System.out.println(i);
        }
}
```



Print 3 7 11 15...

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();

    for (int i = 3; i < n; i += 4) {
        System.out.println(i);
    }
}
```

Print n to 1

i/p :- n = 5

code

```
for( int i=n ; i>=1; i--){
    Syso(i);
}
```

print odd from n to 1

n = 12

n = 11

O/p :- 11 9 7 5 3 1

```
for ( int i=n ; i >=1 ; i -=2){
        Syso(i);
}
```

code

n = 12 11 9 7 5 3 1

```java
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();

    if ( n % 2 == 0 ) {
        n--;
    }

    for (int i = n; i >= 1; i -= 2) {
        System.out.println(i);
    }
}
```