

Previous:

↳ for loop  $\rightarrow$  1R.

↳ Reverse.

↳ iterate in reverse.

## Reverse 5 table

5x10=50

5x9=45

5x8=40

5x7=35

5x6=30

5x5=25

5x4=20

5x3=15

5x2=10

5x1=5

start = 10

end = 1

for ( 10 → 1 )

```
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        for(int i = 10; i >= 1; i--){
            System.out.println("5x" + i + "=" + i*5 );
        }
    }
}
```

Print n to x

$\begin{matrix} n & \text{---} 10 \\ x & \text{---} 4 \end{matrix}$

$\begin{matrix} n & \begin{matrix} 10 \\ 9 \\ 8 \\ 7 \\ 6 \\ 5 \\ 4 \end{matrix} \\ x & \end{matrix}$

```
import java.io.*;
import java.util.*;

public class Solution {

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

        int n = scn.nextInt();
        int x = scn.nextInt();

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

---

print odd from n to 1

$n=7$

7 ✓  
5 ✓  
3 ✓  
1 ✓

$n=8$  ✓

7 ✓  
5 ✓  
3 ✓  
1 ✓

$i \% 2 \neq 0$   
→ odd

for (n → 1)  
{ if (num is odd) → print  
}

y

```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         Scanner scn = new Scanner(System.in);
8
9         int n = scn.nextInt();
10
11         for(int i = n; i>=1; i--){
12             if(i % 2 != 0){
13                 //odd
14                 System.out.println(i);
15             }
16         }
17     }
18 }
19 }
```

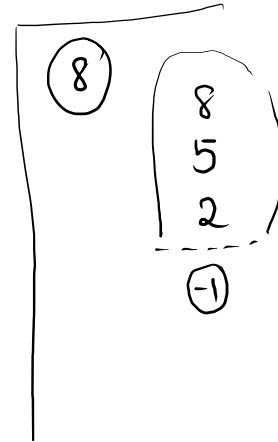
Print n, n-3, n-6 .....

o/p

20

20 } 3  
17 } 3  
14 } 3  
11 } 3  
8 } 3  
5 } 3  
2 } 3

for ( i = n ; i > 0 ; i = i - 3 )  
{  
    sys.out.println(i);  
}



o/p  
14  
11  
8  
5  
2

```
import java.io.*;
import java.util.*;

public class Solution {

    public static void main(String[] args) {
        1. Scanner scn = new Scanner(System.in);
        2. int n = scn.nextInt(); ✓
        3. for(int i = n; i > 0; i = i - 3){
            4. System.out.println(i); ✓
        }
    }
}
```

n = 14

i = 14 ✗ ✗ ✗ ✗ ✗ -1

14 > 0

11 > 0

8 > 0

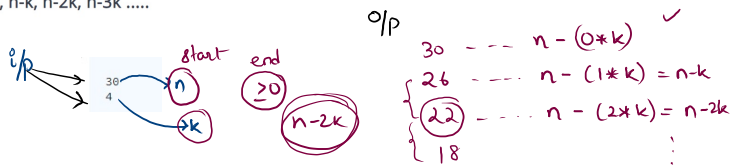
5 > 0

2 > 0

-1 > 0

false ✗ -1 > 0

Print n, n-k, n-2k, n-3k .....



$$30 - 2*4$$

$$30 - 8$$

$$= 22$$

multiple 7

2min

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

```
    int n = scn.nextInt();
    int k = scn.nextInt();
```

```
    // for(int i = n; i >= 0; i = i-k){
    //     System.out.println(i);
    // }
```

```
    for(int i = 0; n - (i*k) >= 0; i++){
        System.out.println(n - (i*k));
    }
}
```

$$n = 30$$

$$k = 4$$

$$i = 30 \quad 26 \quad 22 \quad 18$$

$$30$$

$$26$$

$$22$$

$$18$$

$$n - 0*k$$

$$n - 1*k$$

$$n - 2*k$$

$$n - 3*k$$

$$i \geq 0$$

$$30 \geq 0$$

$$26 \geq 0$$

$$22 \geq 0$$

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

```
    int n = scn.nextInt();
    int k = scn.nextInt();
```

```
    // for(int i = n; i >= 0; i = i-k){
    //     System.out.println(i);
    // }
```

```
    for(int i = 0; n - (i*k) >= 0; i++){
        System.out.println(n - (i*k));
    }
}
```

$$30$$

$$26$$

$$n = 30$$

$$k = 4$$

$$i = 30 \quad 26 \quad 22 \quad 18$$

$$n - 0*k$$

$$n - 1*k$$

$$n - 2*k$$

$$n - 3*k$$

$$n - 4*k$$

$$n - 5*k$$

$$\vdots$$

$$\geq 0$$

$$30 - 4 = 26 \geq 0$$

$$22 \geq 0$$

Print n, n-k, n-2k, n-3k.... till I

$$n = 30$$

$$k = 4$$

$$I = 7$$

30

26

22

18

14

10

6

$\geq I$  7

n

n-k

n-2k

n-3k

$\geq I$

$\geq 0$

```
import java.io.*;
import java.util.*;
```

```
public class Solution {
```

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

```
        int n = scn.nextInt();
        int k = scn.nextInt();
        int I = scn.nextInt();
```

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

```
    }
```

```
}
```

# print a to z

char & loops together.

a  
b  
c  
d  
e  
f  
.  
.  
.  
z

char = 'a'

ch++;  
X  
ch = ch + 1

ch = 'a' ; ch <= 'z' ; ch++

```
import java.io.*;
import java.util.*;
```

```
public class Solution {
```

```
    public static void main(String[] args) {
        for(char ch = 'a'; ch <= 'z'; ch++){
            System.out.println(ch);
        }
    }
```

int i=0; i<26; i++

(char) ('a' + i)

```
}
```



Print a, B, c, D, e, F, g..... 26 characters

a  
b  
c

0 a  
1 B  
2 c  
3 D  
4 e  
5 F  
6 g  
H  
...

26 char.  
fixed.

ch = 'a'

```
for (int i = 1; i <= 26; i++)  
{  
    if (i % 2 == 0) {  
        ch  
    }  
    else {  
        toUpperCase(ch);  
    }  
    ch++;  
}
```

```
import java.io.*;  
import java.util.*;  
  
public class Solution {  
  
    public static void main(String[] args) {  
        char ch = 'a';  
        for(int i = 0; i < 26; i++){  
            if(i % 2 == 0){  
                //even  
                System.out.println(ch);  
            }  
            else{  
                //odd  
                System.out.println(Character.toUpperCase(ch));  
            }  
            ch++;  
        }  
    }  
}
```

ch = 'a' 'b' 'c'

i = 0 1

0 < 26  
1 < 26

a  
B

0 % 2 == 0

0 == 0