



# Methods

## in Java



# What **and** Why?

*baar baar karna hai kucchi → Loops*

# Built-In Methods

Math.floor(x)

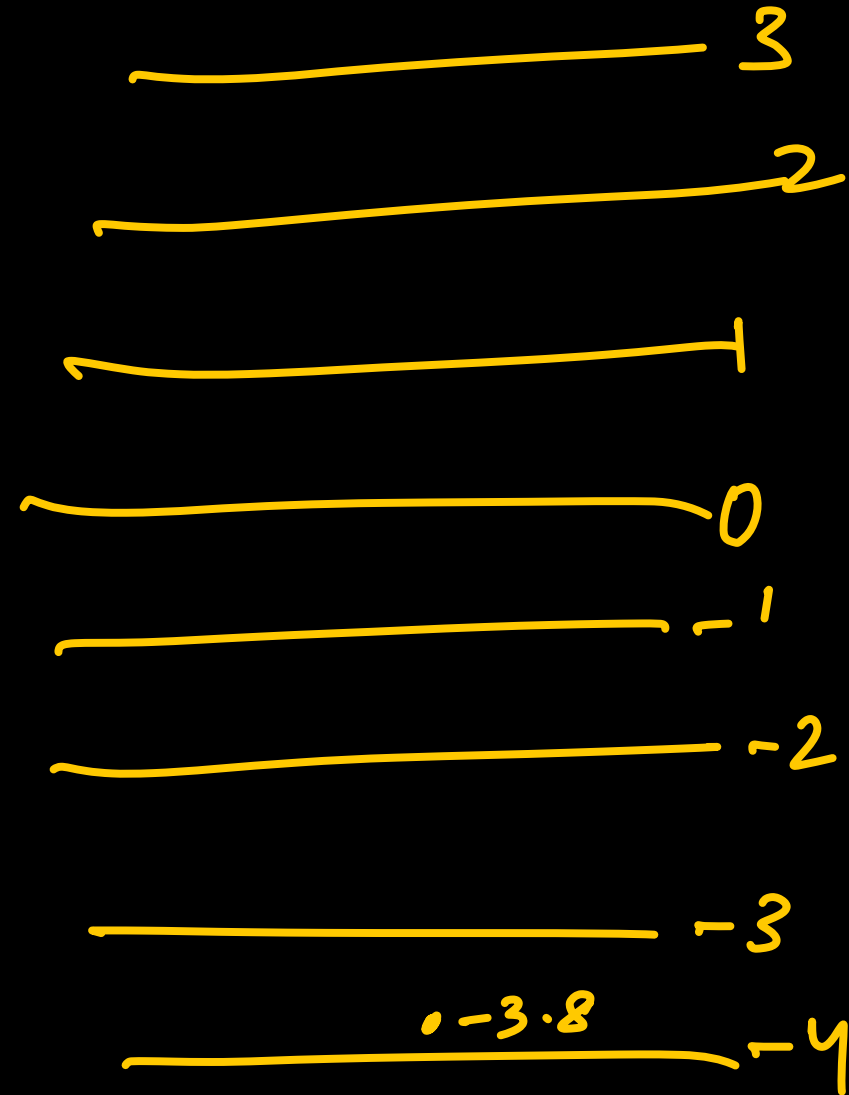
↓

⌊x⌋

[x]

or

⌊x⌋



[-3.8]

H.W. Find the max of 4 numbers. Input them.

# Built-In Methods

*a, b, c, d*

# Syntax and a basic void function

```
public class Syntax {
    4 public static void harsh() {
        5 System.out.println("Ashirwad");
    6 }
    1 public static void main(String[] args) {
        2 System.out.println("Roshan");
        3 harsh(); ✓
    7 }
}
```

Output

- Roshan
- Ashirwad

main method runs first

# Syntax and a basic void function

```

6 public static void shravan() {
    7 karan(); ✓
    11 System.out.println("Khushi");
12
1 public static void main(String[] args) {
    2 riyanshi(); ✓
14
8 public static void karan() {
    9 System.out.println("YASHIKA");
10 }
3 public static void riyanshi() {
    4 System.out.println("Ajay");
    5 shravan(); ✓
13 }

```

Output

- Ajay
- YASHIKA
- Khushi



# Understanding method Calls

# Method Arguments

# return type

public static **int** fun(int a, int b, double c... ) {

}

function ke do kaam hote hai

- jo bhi order hai vo chhodo
- ek value bhi ho sakti hai

# return type

```

✓ public static int prasun(int a){
    ✓ System.out.println("banu");
    ✓ if(a>0) return 5; // khatam
      else return 10;
}

✓ public static void main(String[] args) {
    ✓ int x = prasun(7); → 5
    ✓ System.out.println(3+x);
      // prasun(); // stand alone call lagay
}

```

7  
a

5  
x

Output

banu  
8

Math.max(a,b) → int



**Ques:** Take 'n' and 'r' as input and print nCr and nPr.

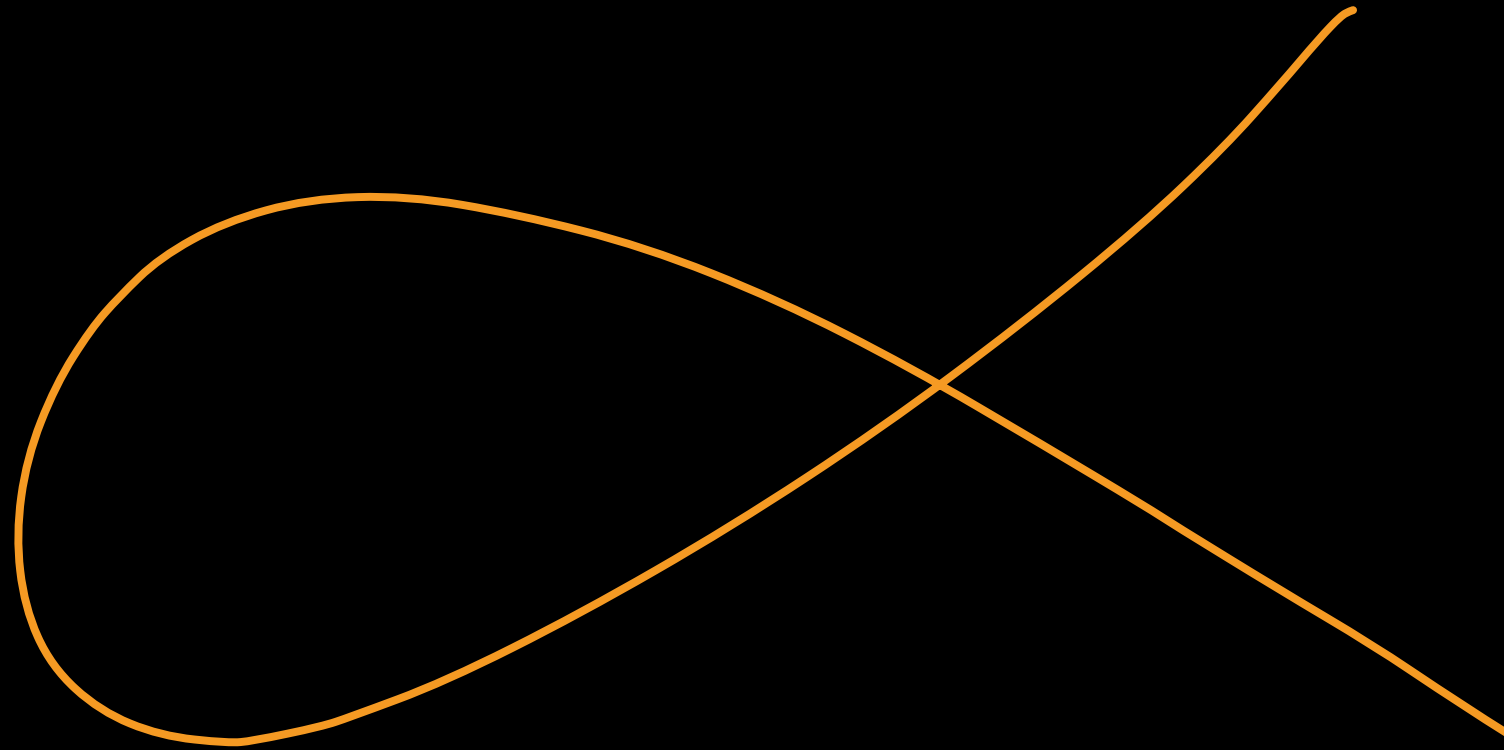
$${}^nC_r = \frac{n!}{r! \times (n-r)!}$$

For ex:  ${}^7C_3 = \frac{7!}{3! \times (7-3)!} = \frac{7!}{3! \times 4!} = \frac{7 \times 6 \times 5 \times 4 \times 3 \times 2}{3 \times 2 \times 1 \times 4 \times 3 \times 2} = 35$

$${}^nP_r = \frac{n!}{(n-r)!}$$



**Ques:** Take two numbers input and calculate their HCF or GCD.

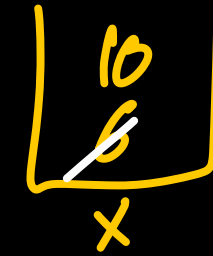


*Recursion me Kareenge*

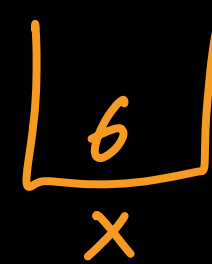


# Pass by Value & Pass by Reference

```
public static void change(int x){  
    x = 10;  
}
```



```
public static void main(String[] args) {  
    ✓ int x = 6;  
    ✓ System.out.println(x);  
    ✓ change(6);  
    ✓ System.out.println(x);  
}
```



Output

6  
6



**Ques:** Swap 2 Numbers



THANKYOU

*Cuties*