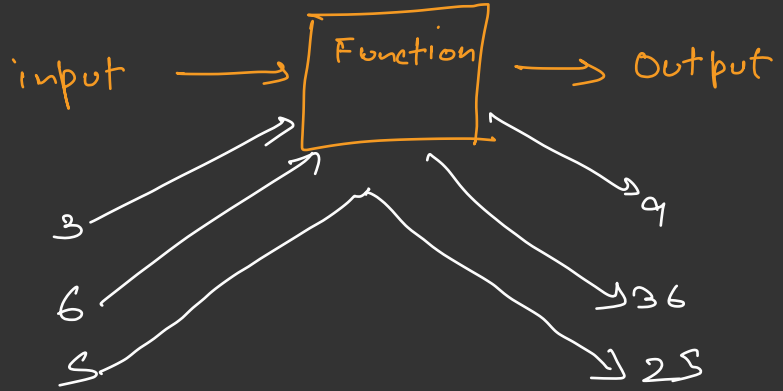
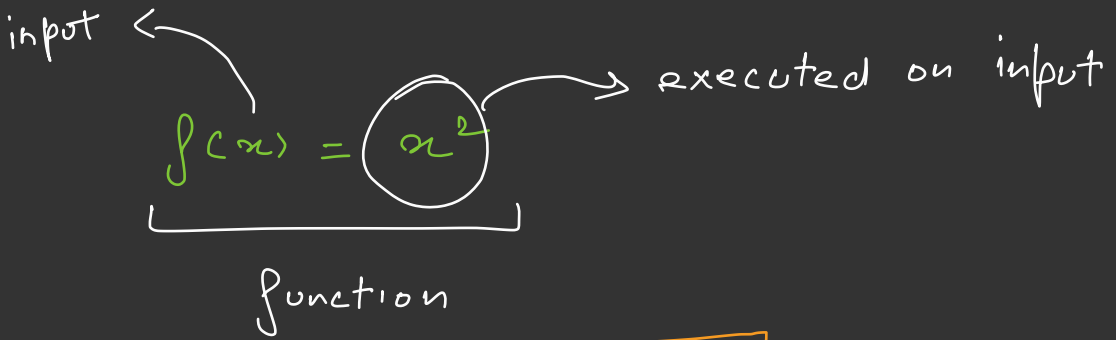


# Functions



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

$${}^5C_3$$

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

$i = i * 2$   
 $\rightarrow i * = 2$

$\rightarrow$   $nfact = nfact * i$

int nfact = 1;

```

    for (int i = 1; i <= n; i++)
        nfact *= i;
}

```

```

int nmaxfact = 1;
for (int i = 1; i <= n - 2; i++) {
    nmaxfact *= i;
}

```

```

int ncr = nfact / (nmaxfact * nfact);

syso(ncr);

```

DRY  $\Rightarrow$  Don't Repeat Yourself

```

public static returnType Name(parameters) {
    // Body
}

```

returnType  $\rightarrow$  int, long, byte, double, .... etc  
void

```

public static int factorial (int n) {
    int nfact = 1;
    for (int i = 1; i <= n; i++) {
        nfact *= i;
    }
    return nfact;
}

```

parameter

argument

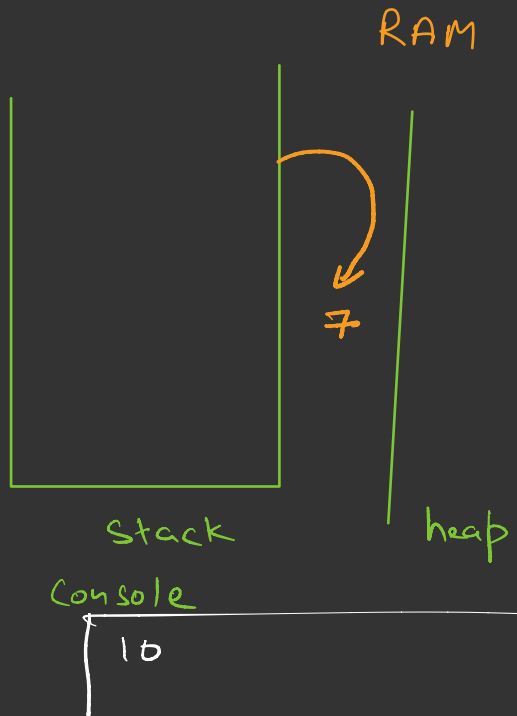
function call

`factorial (2);`

```

1  s void fun(int n){
2  int a = 40;
3  ...
4  ps vm L) {
5  int a = 10;
6  int b = 20;
7  boolean c = false;
8  fun(2);
9  fun(3);
10 sysco(a);
11 b = fun2(5); ←

```

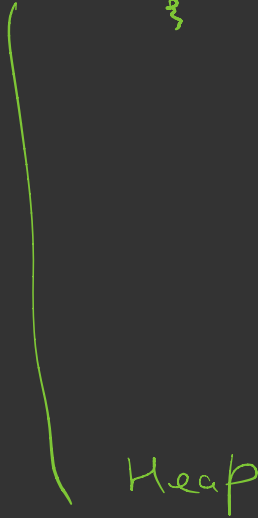


no

RAM  $\rightarrow$   $\{ \text{int fun2(int a)} \{$   
 $\rightarrow \text{return a+2;}$   
 $\}$



Stack



Heap