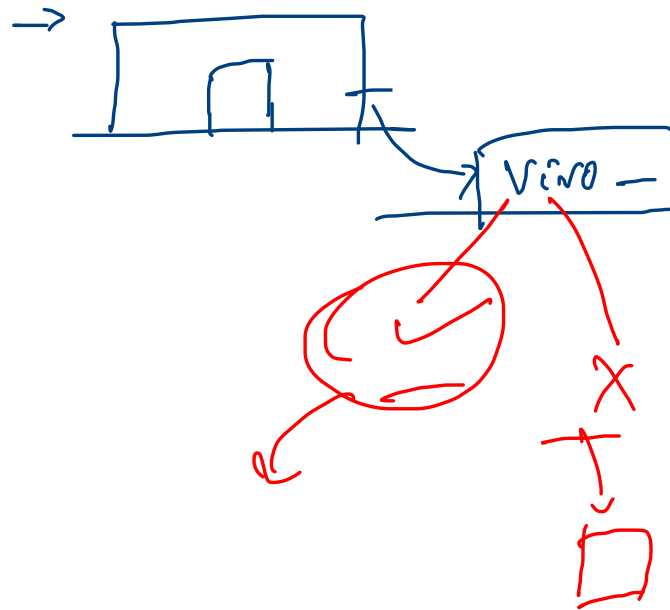


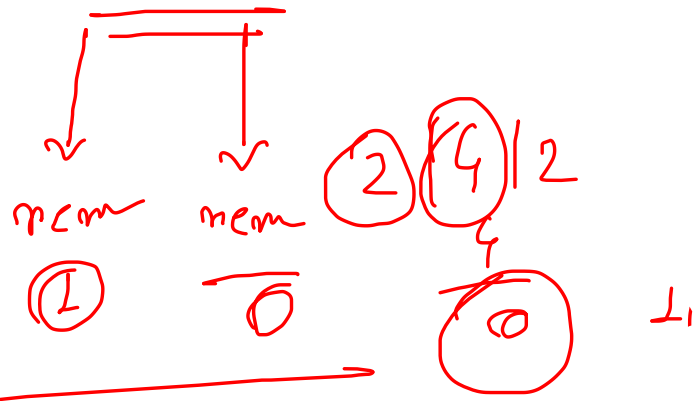
# Control Flow

↳ if-else

```
if(cond) {  
    // body  
} else {  
    // body  
}
```



## Odd - Even



```
Oper.js > ...  
let a = 10;  
let b = "10";  
console.log(a==b);
```

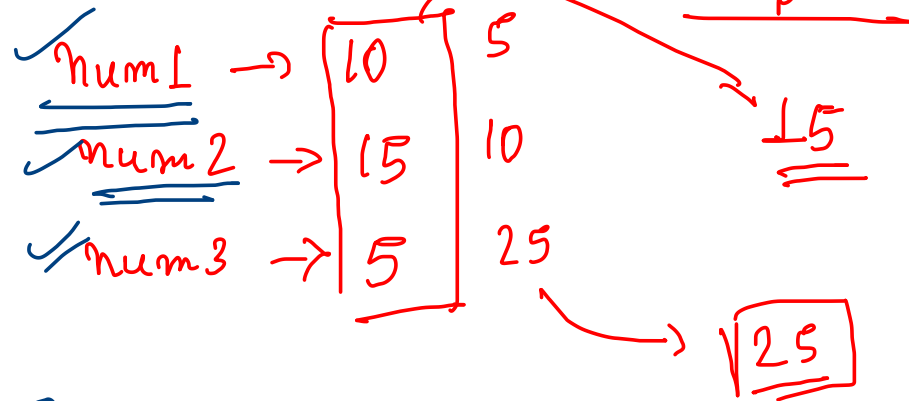
10  
10  
true

Only value not  
data type

===

Value + datatype

Input :-



① ==

22 → AND Operator

①

②

③

All equal

else

num3 == num1  
== num2

[num1 > num2]  
22 [num1 > num3]

num2 > num1

22 num2 > num3

num3 > num1

22 num3 > num2

10 5 (15)

loop  
 Entry Exit  
 For  $\leq$  in each Do while  
 While

for  $L \rightarrow 10$   
 {  
 for (let  $i = L; i \leq 10; i++$ )  
 {  
 console.log( $i$ );  $i = i + 1$   
 }  
 }  
 1  
 2  
 3

while  
 {  
 let  $i = L$ ;  
 while ( $i \leq 10$ ) {  
 console.log( $i$ );  
 $i++$ ;  
 }  
 }

② Prime  
 $\rightarrow$  Only divisible by 1 and itself  
 9 | 11  
 3 5  
 12 1  
 3 12  
 7 1  
 7  
 2  
 7  
 1  
 2  
 3  
 5  
 $n-1$   
 n  
 2 x  
 3 ✓  
 4  
 5  
 6  
 7  
 8  
 2 x  
 3 x  
 4 x  
 5 x  
 6 x

$O(n/2)$   
 $9/2$   
 $7/2$

① Factorial

$n = 5$   
 120

⑤

0x

① 5

1 x 2 x 3 x 4 x 5  
 1 2 6 24 120

let  $n = 5$ ;  
 let  $fact = 1$ ;  
 for (let  $i = 1; i \leq n; i++$ )  
 {  
 $fact = fact * i$ ;  
 }  
 console.log(~~fact~~ fact);

② Prime or Not

7 5

$n = 7$

Prime

$n = 12$

Not Prime

```

JS Prime.js > ...
1  let n = 12 9;
2  let isPrime = true;
3  for(let i=2; i<=n/2; i++){
4      if(n%i==0){
5          isPrime=false;
6          break;
7      }
8  }
9  if(isPrime){
10     console.log("Prime");
11 }else{
12     console.log("Not Prime");
13 }

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Handwritten notes illustrating the logic for checking if 12 is prime:

9      12 → Prime

12 is divided by 2, 3, 4, 5, 6. Since 12 is divisible by 2, 3, and 4, it is not prime.

2 x ✓  
3  
4  
5  
6

7

1 x  
2 x  
3 x

"JavaScript"      '100'

"100"

```
StringEx.js 7 ...
1  let str = "Hello JavaScript";
2      0 1 2 3 4
3  console.log(str);
4  console.log(str.length);
5  console.log(str.charAt(2));
6  console.log(str.indexOf('l'));
7  console.log(str.toLowerCase());
8  console.log(str.toUpperCase());
9
10 let st = "hello";
11 console.log(st.length);
12 st = st.trim();
13 console.log(st.length);
```

```
3 console.log(5+5);
4 console.log(30+36+"Hello"+22+6);
5
6 // let st = "hello";
```

"66Hello"

"66Hello 22" + 6

"66Hello 226"

30 + 36

= 66 + "Hello"

= "66Hello" + 22

= "66Hello 22" + 6

= "66Hello 226"

str = "Hello JavaScript"

a → 2

⑤

frequency of a character.

- "Hello JavaScript"  
↑ ↑ ↑

```
JS Freq.js > ...
1 let str = "Hello JavaScript";
2 let frq = 0;
3 let k = 'a';
4 for(let i = 0; i < str.length; i++){
5     let ch = str.charAt(i);
6     if(ch === k){
7         frq++;
8     }
9 }
10
11 console.log(frq);
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```

1 let str = "Hello JavaScript";
2 console.log(str.substring(2, 8));

```

$$\underline{2} \rightarrow \underline{\underline{8-1}}$$

$$2 \rightarrow \underline{7}$$

"llo Ja"

$$2 \quad 7$$

$$2 \rightarrow 7-1 = 6$$

llo J

JS StringEx.js > ...

1 let str = "Hello JavaScript";

2 let arst = str.split(" ");

3 console.log(arst);

4

5 console.log(str);

Split(" ");

[ 'Hello', 'JavaScript' ]

PROBLEMS

2

OUTPUT

DEBUG CONSOLE

TERMINAL

llo Ja

PS D:\Unmeshanam\JavascriptBatch-Monday-Wed\Day2> node

Hello JavaScript

llo Ja

[

'H', 'e', 'l', 'l',

'o', ' ', 'J', 'a',

'v', 'a', 'S', 'c',

'r', 'i', 'p', 't'

]

PS D:\Unmeshanam\JavascriptBatch-Monday-Wed\Day2> node

Hello JavaScript

llo Ja

[ 'Hello', 'JavaScript' ]

PS D:\Unmeshanam\JavascriptBatch-Monday-Wed\Day2>