Q⇒ Given a number x, check if the number is even or odd ??

Ex $x = 27$

output : → Odd

Ex → $x = 54$

output : → Even

→ What type of numbers are even ??

↳ a number which is completely divisibly by 2 is an even no.

A no. which is not completely divisible by 2 are odd no.

$2\overline{)7}\,3$

1

↳ non zero remainder

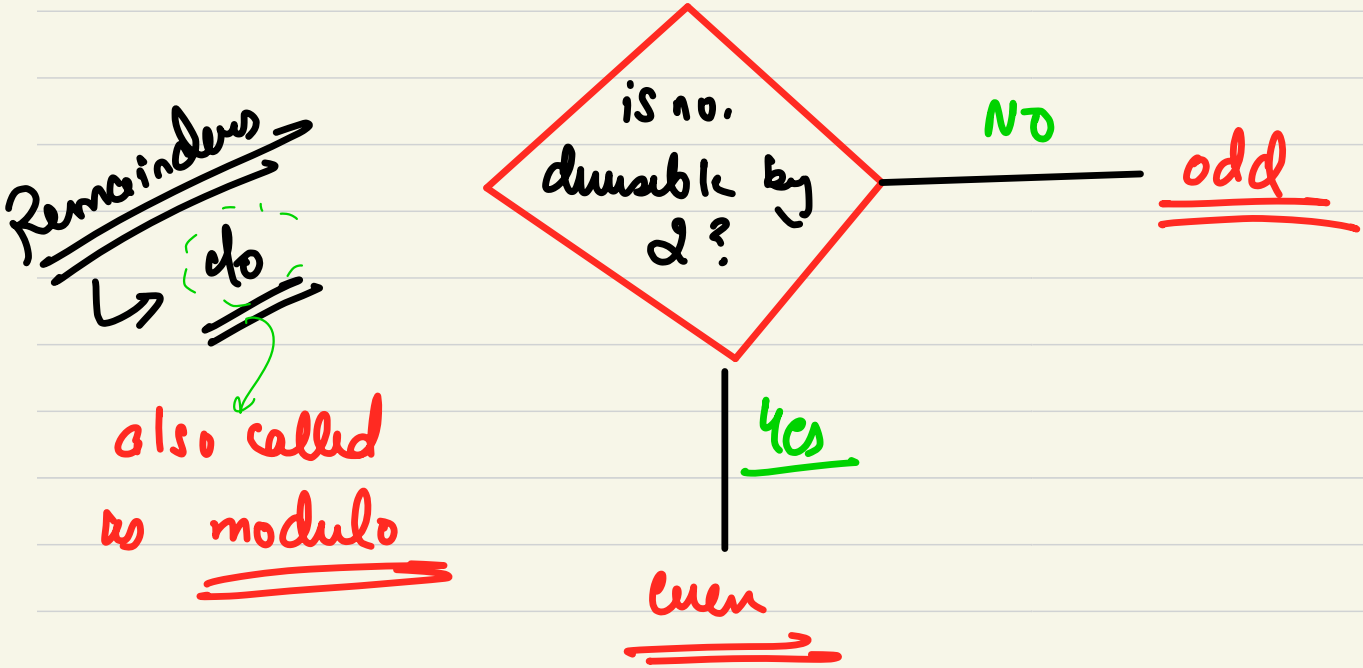
7 is not divisible by 2

$2\overline{)16}\,8$

16

0

→ 16 was completely divisible



How to check if a no. is divisible by 2?

$7 \% 2 \rightarrow 1$

$34 \% 2 \rightarrow 0$

$x / 2 \rightarrow$ quotient

$x \% 2 \rightarrow$ remainder

```
if ( x % 2 == 0) {
        console.log ("Even");
} else {
        console.log ("odd");
}
```

condition

Q» Consider three integer values, and find the minimum value among the given input values.

(don't use any internal fun^n)

Ex x = 10, y = 20, z = 6

Output → 6

Ex → x = 10, y = 3, z = 100

output → 3

We have 3 numbers

x y z

Somehow we have to consider all 3 no. in the comparison.

In which case x will be the smallest ??

→ $x < y$ && $x < z$ → logical and

if these 2 conditions are true together the x is the smallest

(In no other case x will be the ans)

Ex $x = 2$ $y = 5$ $z = 9$

$2 < 5$ && $2 < 9$

Yes → true && Yes → true → true

In what case y will be the smallest no ??

$y < x \;\&\&\; y < z$

if these 2 conditions hold true together

(In no other case y will be a.s)

Eg $x = 10 \quad y = 3 \quad z = 15$

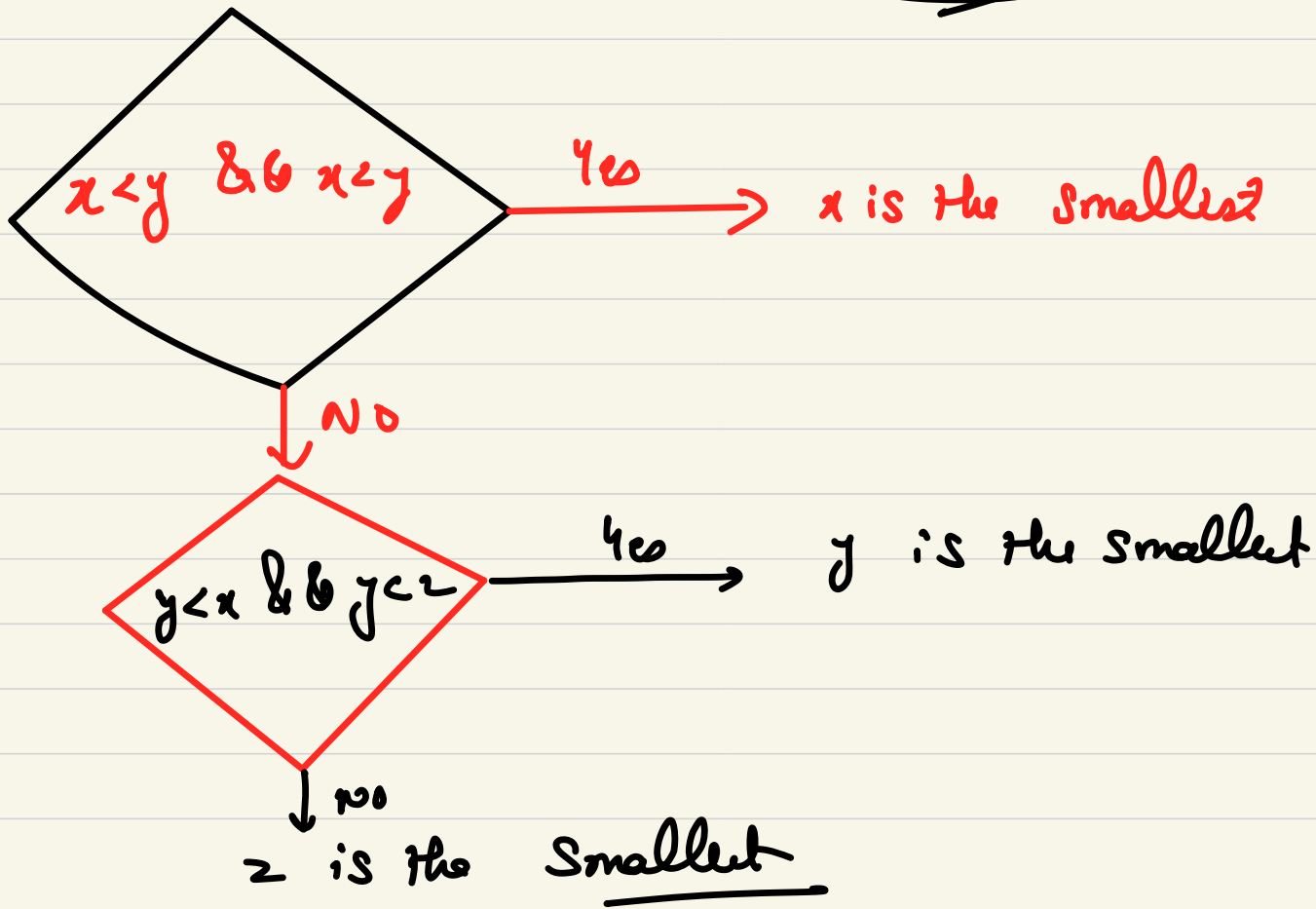
$3 < 10 \;\&\&\; 3 < 15$

true true

In what case z will be the smallest??

→ if x is not the ans and y is also not the ans, that mean z is the ans.

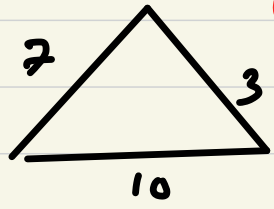
Note


x<y && x<z
yes
x is the smallest
NO
y<x && y<z
yes
y is the smallest
no
z is the Smallest

```
if (x < y && x < z) {
    console.log(x);
}
else if (y < x && y < z) {
    console.log(y);
}
else {
    console.log(z);
}
```

Q → We all know about triangles. But this time let's do something interesting.

Given 3 integers a, b, c check if we can form a triangle with the sides of the triangle having length a, b and c. (We're not only talking about right angled)



Ex → a = 7, b = 10, c = 3

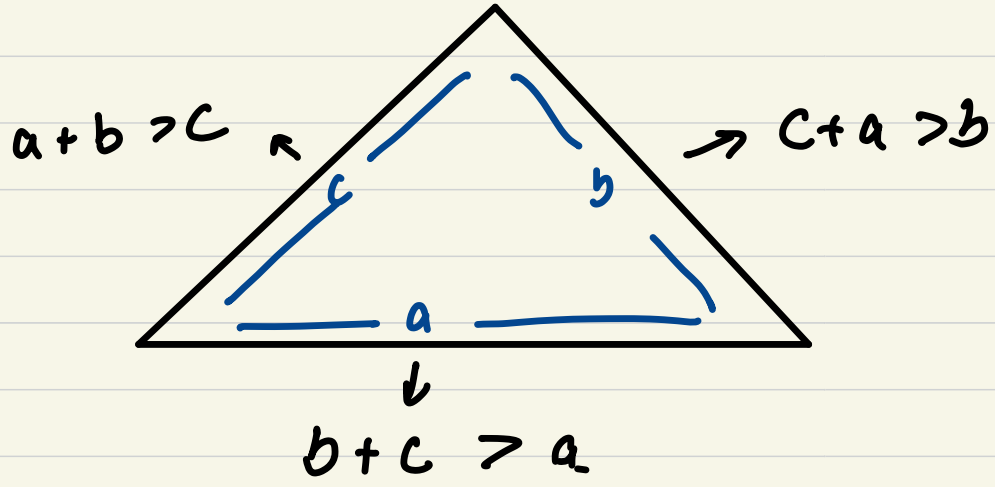
ans → Yes

Ex → a = 1, b = 10, c = 12

ans → NO

a b c

we want all of the 3 conditions together



if we want to create a triangle with a, b, c sides then for each side the sum of other 2 sides should be greater.

```
if (a+b > c && b+c > a && a+c > b) {
    console.log("Yes");
}
else {
    console.log("No");
}
```

Q.. Given the side length of a triangle in the form of 3 integers. Check if the given triangle is equilateral or scalene or isoseles.

Ex → a = 7 , b = 7, c = 7

ans → equilateral

Note → given input will always form a triangle.

Ex → a = 8, b = 12, c = 5

ans → scalene

Ex → a = 8 , b = 14, c = 8

ans → isosceles

→ equilateral → all the sides are equal to each other.

Scalene → none of the sides are equal to each other

isosceles → any 2 sides are equal to each other but the 3rd one is diff.

→ if(a==b && b==c && a==c)

↳ equilateral.

elseif(a!=b && b!=c && a!=c)

↳ scalene

else

↳ isosceles

Iway

if (a==b && b==c && a==c)

↳ equilateral

else if (a==b || b==c || a==c)

↳ isosceles

else

↳ scalene

2 way

Q-1 → Given a year, check if it is a leap year or not?

Ex → 2004

Yes a leap year

Q → Given a no, check if the no. is odd or even using bitwise operator.