

The diagram illustrates an If-Else statement structure. At the top, the words 'agar' and 'magar' are written in a cursive script, with arrows pointing downwards to the corresponding parts of the text below. The text 'If-Else' is written in a large, bold, yellow font. Below it, the word 'Statements' is written in a large, white, sans-serif font.

agar

magar

If-Else

Statements

Contents

- 1. If, If-Else**
- 2. Else If**
- 3. Multiple conditions using Logical Operators**
- 4. Nested If-Else**
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Relational Operators \rightarrow to compare 2 quantities and boolean data type

 $a > b$ $a < b$ $a \geq b$ $a \leq b$ $a \neq b$ $a := b$ $a = b$ \downarrow

assignment

Ques: Take positive integer input and tell if it is odd or even

'n' even kab hota hai?

↓

jab vo 2 se divisible ho

if($n \% 2 == 0$) Even

else odd

HW: Take positive integer input and tell if it is divisible by 5 or not.

Ques: Take integer input and print the absolute value of that integer

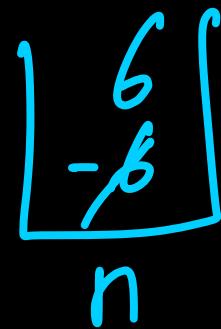
$n=5$

5

$n=-4$

4

n



$n=-n$

Ques: Take real number input and check if it is an integer or not.

double x = sc..

7.2
x

Ques: If cost price and selling price of an item is input through the keyboard, write a program to determine whether the seller has made profit or incurred loss or no profit no loss. Also determine how much profit he made or loss he incurred.

```
int cp = sc.nextInt();           if (sp > cp) → profit  
int sp = sc.nextInt();           else loss
```

Else If Ladder

if (cond1) -- --

else if (c2) -- --

else if (c3) -- --

else if (c4) -- --

else

HW: Take length and breadth of rectangle as input and write a program to find whether the area of rectangle is greater than its perimeter.

Ques: Take positive integer input and print:

- Riya if number is divisible by 5
- Banu if number is divisible by 3
- Apurva if number is divisible by 5 & 3 both
- Isha if number is not divisible by 5 or 3

HW: Given a point (x, y) , write a program to find out if it lies in the 1st Quadrant, 2nd Quadrant, 3rd Quadrant, 4th Quadrant, on the x-axis, y-axis or at the origin.

Multiple Conditions using && and ||



logical or

logical and

Ques: Take positive integer input and tell if it is a four digit number or not.

$n = 23 \rightarrow$ not a 4 digit no

$n = 1484 \rightarrow$ 4 digit no.

if ($n > 999$ and $n < 10000$)

↓
if

$1484/10$

$= 148/10$

$14/10$

$1/10$

0

$23/10$

$2/10$

0

HW: Take integer input and tell if its magnitude is smaller than 69 or not.

$$n = -34$$

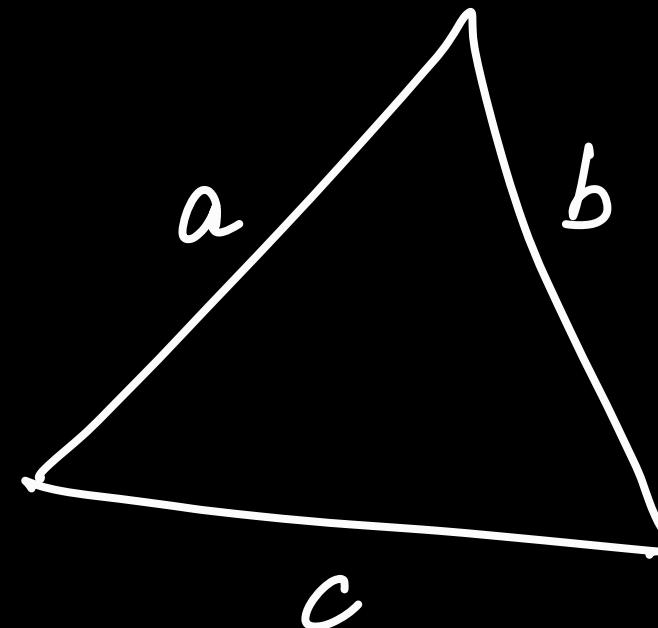
$$|-34| < 69$$

Ques: Take positive integer input and tell if it is divisible by 5 or 3.

3, 5, 6, 9, 10, 12, 15, 18, 20, 21, 24, 25, 27, 30 ...

if(n%5 == 0 or n%3 == 0)
 1
 ||

Ques: Take 3 positive integers input and tell if they can be the sides of a triangle or not.



$$a + b > c$$

$$b + c > a$$

$$c + a > b$$

Ques: Take 3 positive integers input and print the greatest of them.

HW: Take 3 positive integers input and print the least of them.

Nested If-Else

```
if ( ) {  
    | if ( ) —  
    | else —  
}  
else {  
    if ( ) —  
    else —  
}
```

Ques: Take 3 positive integers input and print the greatest of them. a, b, c

if ($a > b$) { // b to max nahi hai

 if ($a > c$) sout(a)

 else sout(c)

}

else { // $b > a$ iska matlab a to max nahi hai

 if ($b > c$) sout(b)

 else sout(c)

}