If-Else Statements

Contents

Relational Operators ⟶ to compare 2 quantities and boolean data type

a > b

a < b

a >= b

a <= b

a != b

a == b

a = b

↓

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.

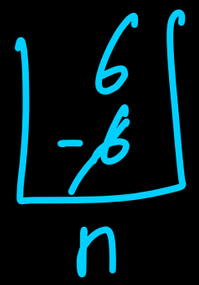
Ques: Take integer input and print the absolute value of that integer

n = 5

5

n = -4

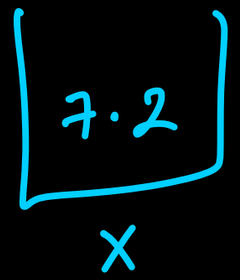
4



n = -n

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

double x = sc..



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();
int sp = sc.nextInt();
```

```
if (sp > cp) → profit
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 ||

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

n = 23 → not a 4 digit no

n = 1484 → 4 digit no.

if (n > 999 and n < 10000)

↓

&&

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.

$n = -34$

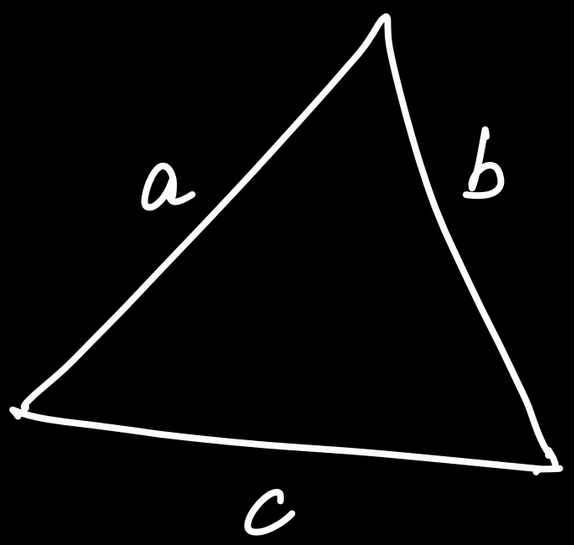
$|-34| < 69$

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)
          ||
          ||
```

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



$a+b>c$

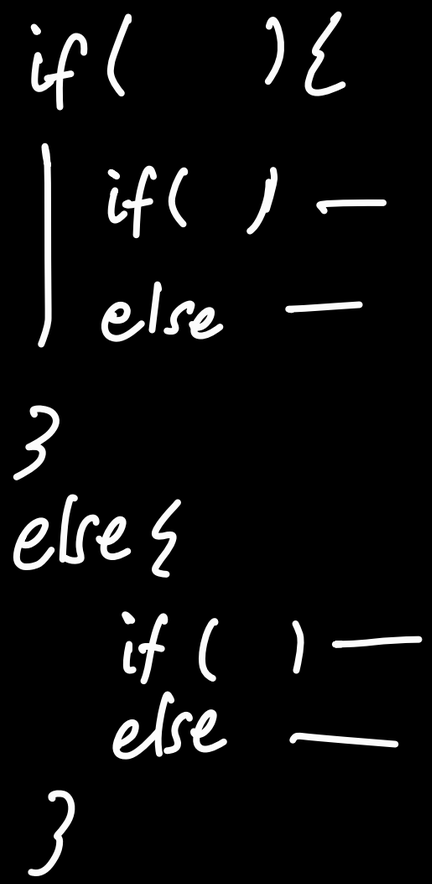
$b+c>a$

$c+a>b$

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



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)

}
```