

1. Find student average mark given mark 1 and mark 2.

input-mark1 and mark2    output-average mark

Step 1: Start

Step 2: Declare values mark1, mark2 and avg

Step 3: Read values mark1 and mark2 and find sum

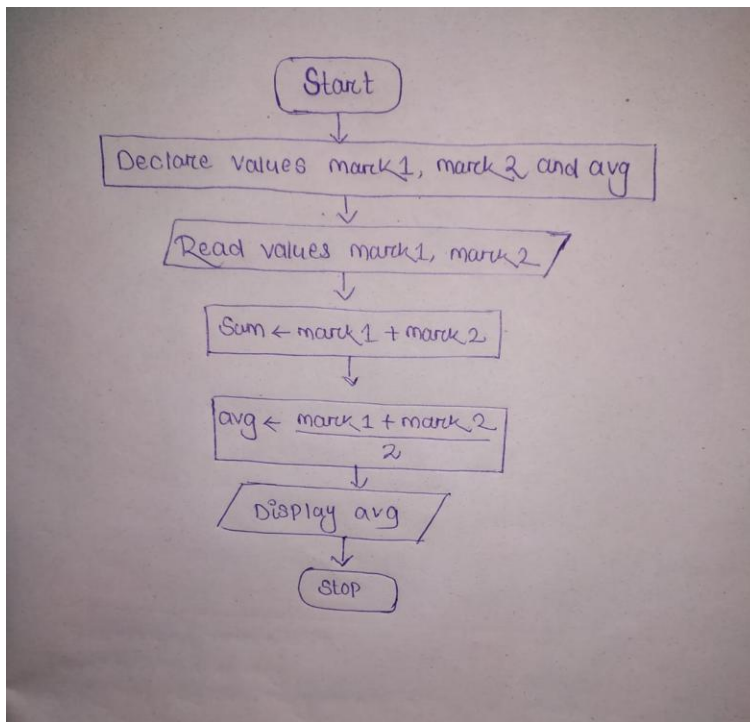
$\text{sum} \leftarrow \text{mark1} + \text{mark2}$

Step 4: Divide the sum by 2 and assign the result in avg

$\text{avg} \leftarrow \frac{\text{mark1} + \text{mark2}}{2}$

Step 5: Display avg

Step 6: Stop



2. Calculate the total fine charged by library for late return books. The charge is 0.20 INR for a day.

input- issue date, return date and charge      output- total fine

Step 1: Start

Step 2: Declare days, initialize charge and fine

Step 3: Read issued date and return date and charge

Step 4: subtract return date and issue date and find number of days

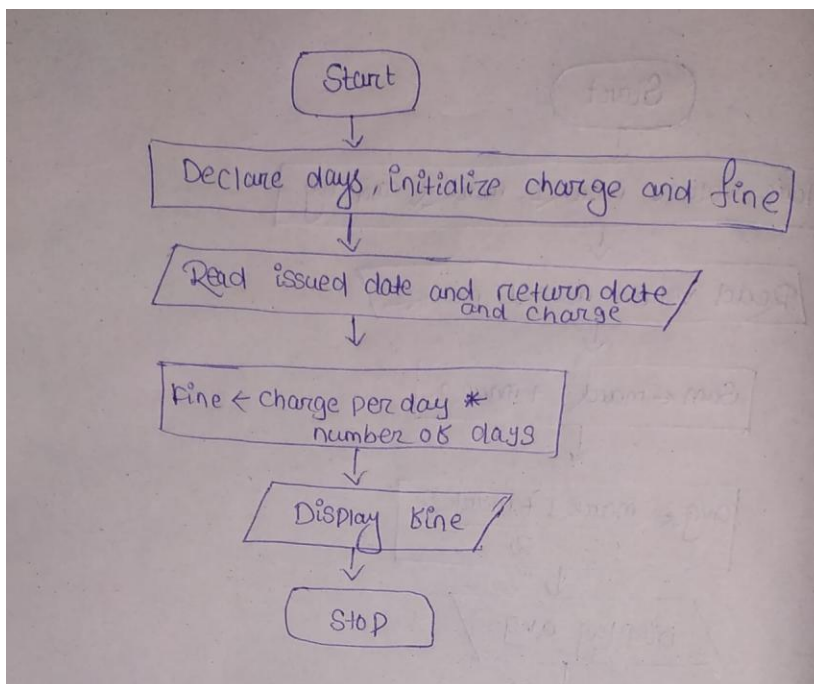
number of days  $\leftarrow$  return date - issued date

Step 5: Multiply the charge per day and number of days and assign the result in fine

fine  $\leftarrow$  charge per day \* number of days

Step 6: Display fine

Step 7: Stop



3. you had bought a nice shirt which cost is Rs29.90 with 15% discount. Count the net price for the shirt.

Input-cost and discount    output-net price

Step 1:Start

Step 2:Declare cost,discout and net price

Step 3:Read cost and discount

Step 4:Multiply the discount and cost and find the discount cost

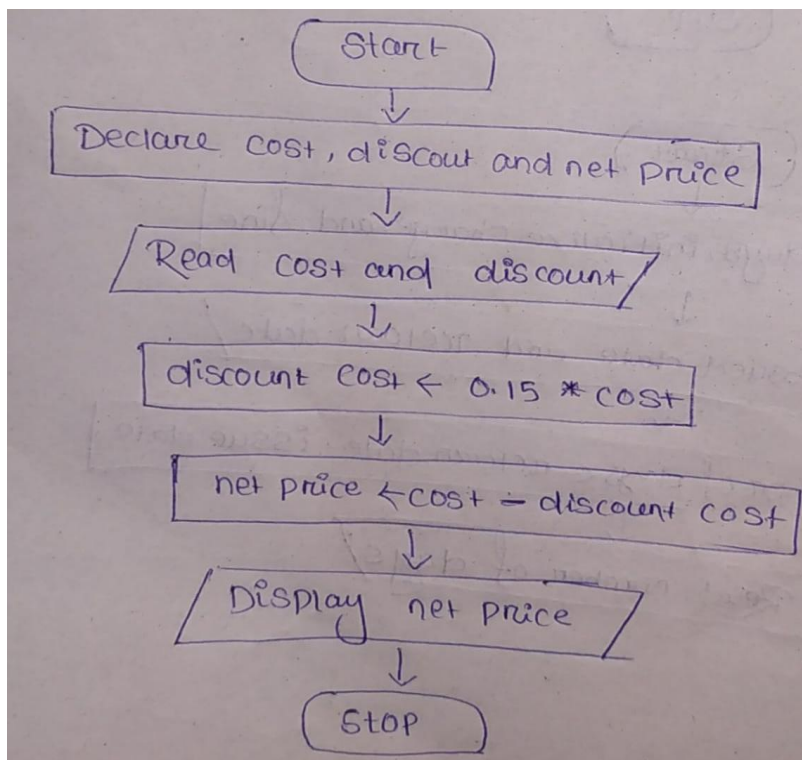
$\text{discount cost} \leftarrow 0.15 * \text{cost}$

Step 5:subtract the actual cost and discount cost and assign the result in net price

$\text{net price} \leftarrow \text{cost} - \text{discount cost}$

Step 6:Display net price

Step 7:Stop



4. Find the smallest number among three different numbers.

Step 1: Start

input-variable a,b,c

Step 2: Declare 3 variables a,b,c

output-smallest number

Step 3: Read variables a,b and c

Step 4: if  $a < b$

if  $a < c$

Display a is the smallest number

Else

Display c is the smallest number

Else

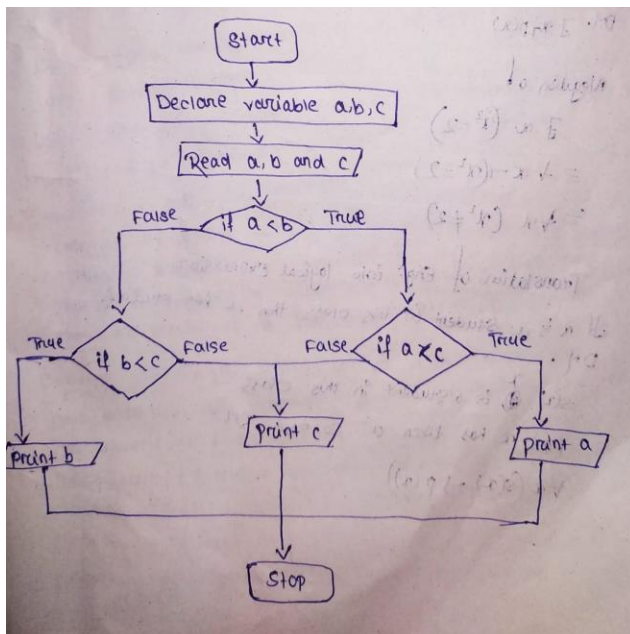
if  $b < c$

Display b is the smallest number

Else

Display c is the smallest number

Step 5: Stop



5. Find the roots of a quadratic equation  $ax^2+bx+c=0$  .

input-variable a,b,c

output-roots x1,x2

Step 1:Start

Step 2:Declare variables a,b,c

Step 3:Read variables a,b,c

Step 4:Find the value of D using the formula

$$d \leftarrow \text{sqrt}(b*b-4*a*c)$$

Step 5:If D is greater than or equal to zero find 2 roots

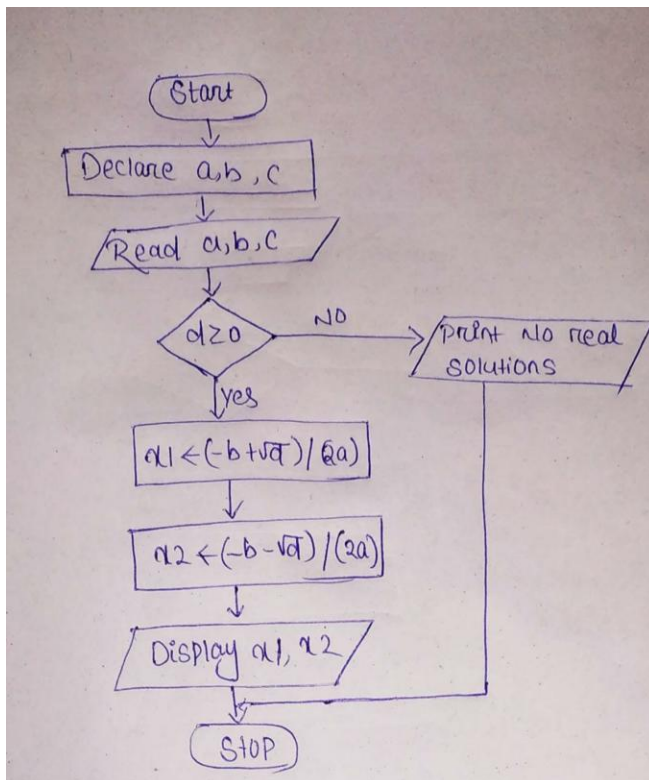
$$x1 \leftarrow (-b+\text{sqrt}(d))/(2*a)$$

$$x2 \leftarrow (-b-\text{sqrt}(d))/(2*a)$$

Step 6:Display x1,x2

Step 7:If D is less than zero ,then print No real solutions

Step 8:Stop



## 6. Find the factorial of a given number.

Input-variable num,i,fact      output-fact

Step 1:Start

Step 2:Declare the variable i,fact,num

Step 3:Read the value of num

Step 4:Initialize counter variable i to 1 and fact to 1

Step 5: if  $i \leq \text{num}$  go to step 6 otherwise goto step 7

Step 6:  $\text{fact} \leftarrow \text{fact} * i$

Step 7:increment counter variable i and go to step 5

Step 8:Display fact

Step 9:Stop

