



Programming for Problem Solving (Exp 1-1)

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Program: B. Tech Data Science (1st)	Batch: J1
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Task 1:

Algorithm:

Step 1: Start

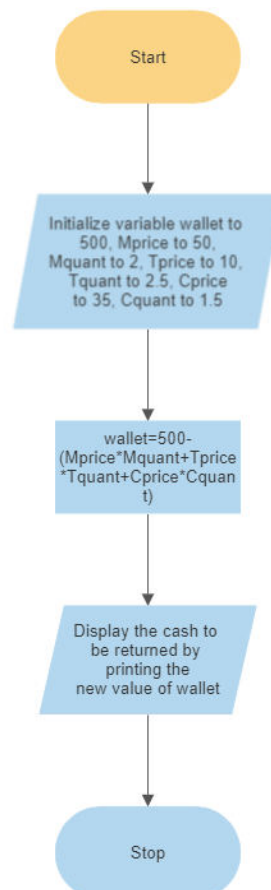
Step 2: Initialize variable wallet to 500, Mprice to 50, Mquant to 2, Tprice to 10, Tquant to 2.5, Cprice to 35, Cquant to 1.5

Step 3: wallet=500-
(Mprice*Mquant+Tprice*Tquant+Cprice*Cquant)

Step 4: Display the cash to be returned by printing the new value of wallet

Step 5: Stop

Flowchart:



Task 2:

Algorithm:

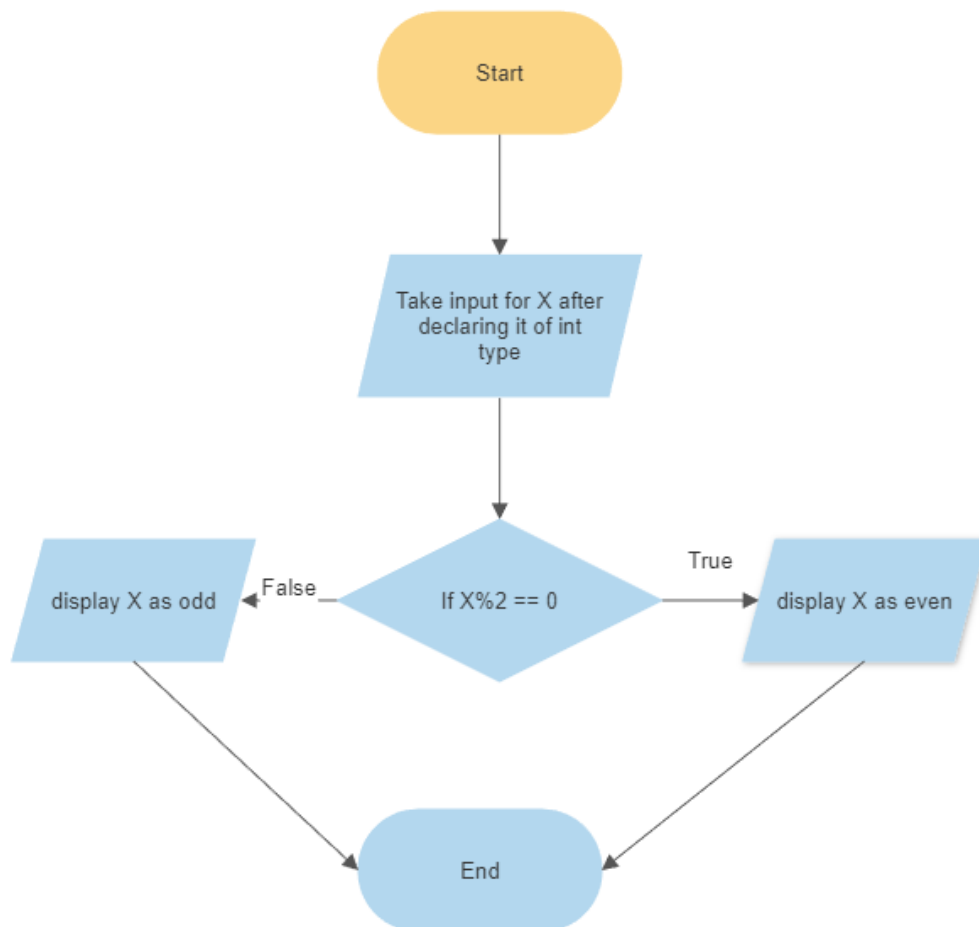
Step 1: Start

Step 2: Take input for X after declaring it of int Type

Step 3: If $X\%2$ is equal to 0, display X as even, else display as odd

Step 4: Stop

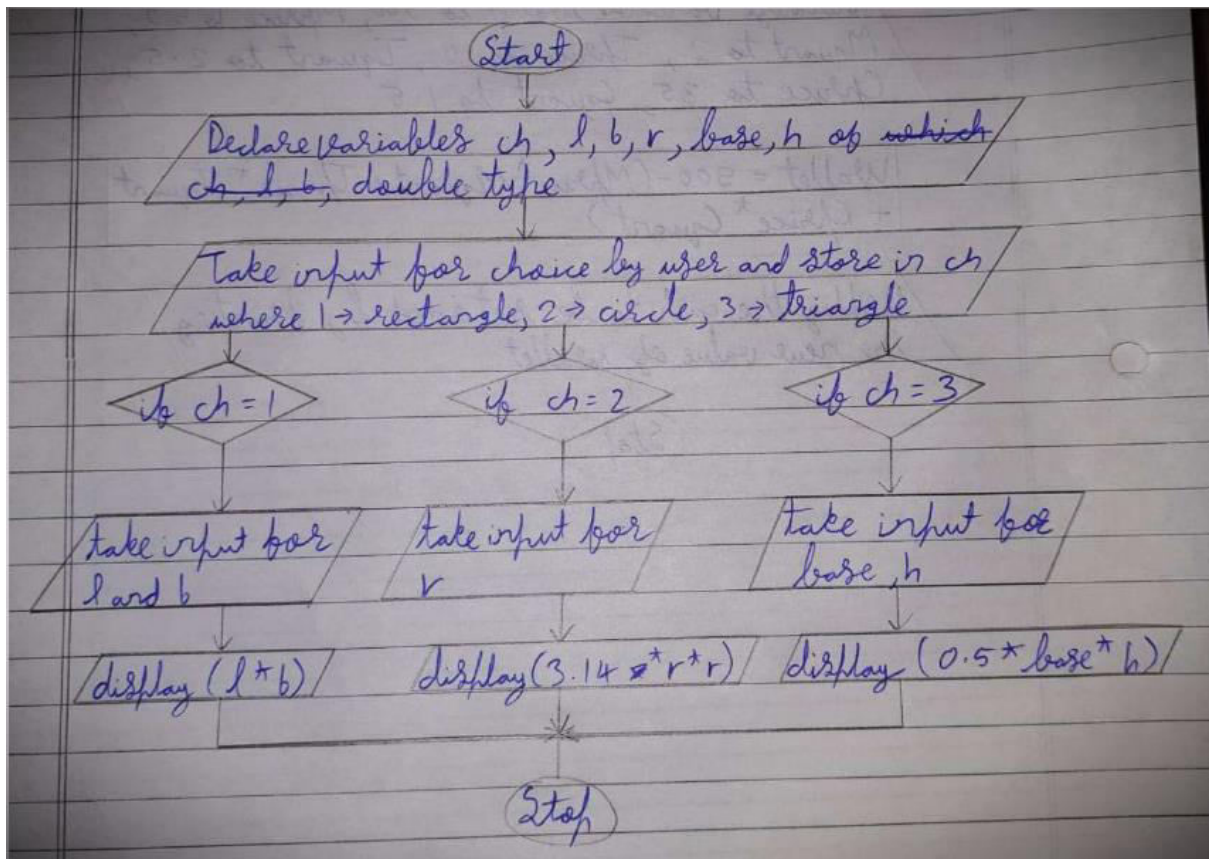
Flowchart:



Task 3:

Variables used ch,l,b,r,base,h of double type

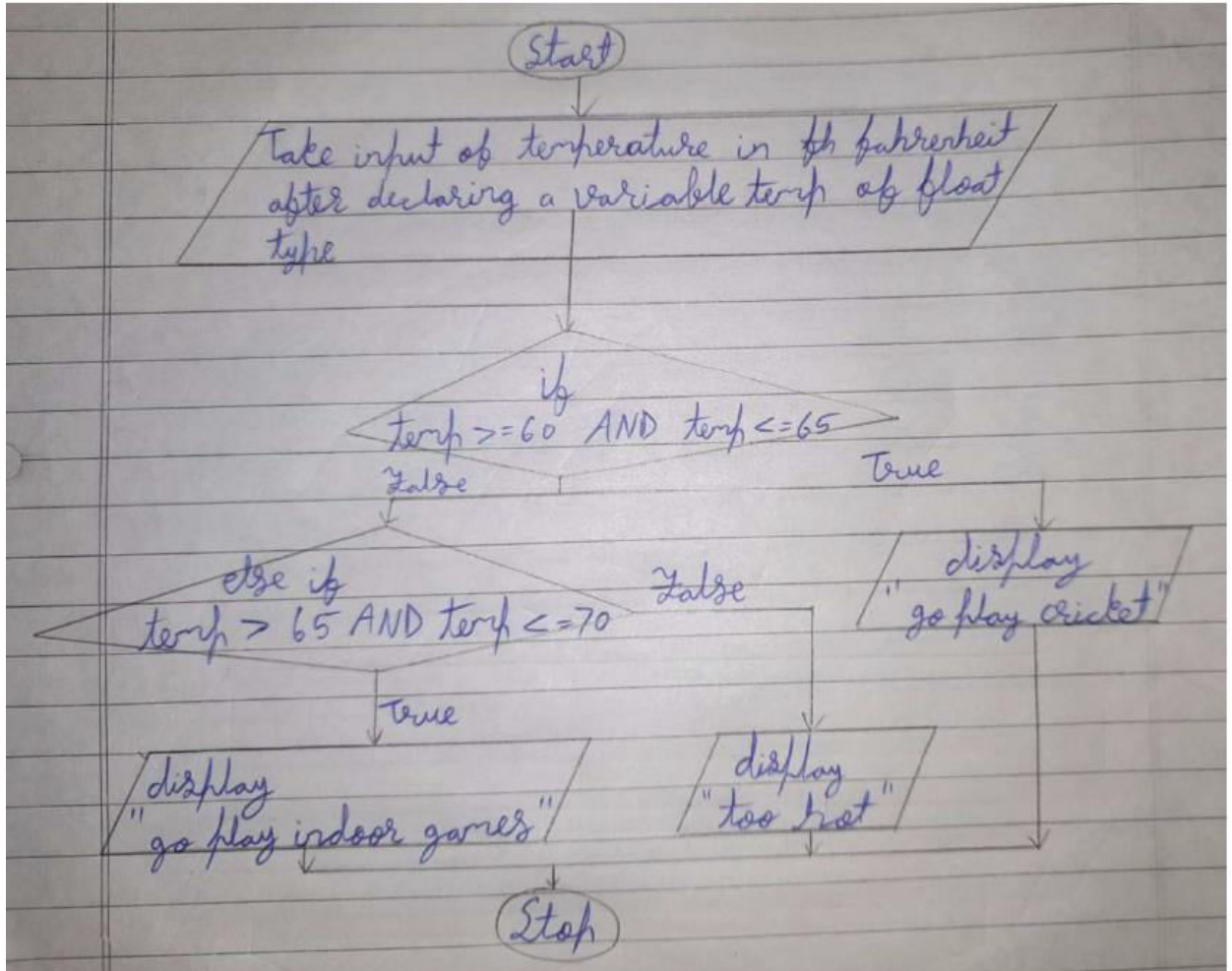
Flowchart:



Dry run: for radius 6 units, area of
circle= $3.14 * 3.14 * 6 = 59.1576$ sq units

Task 4:

Flowchart:



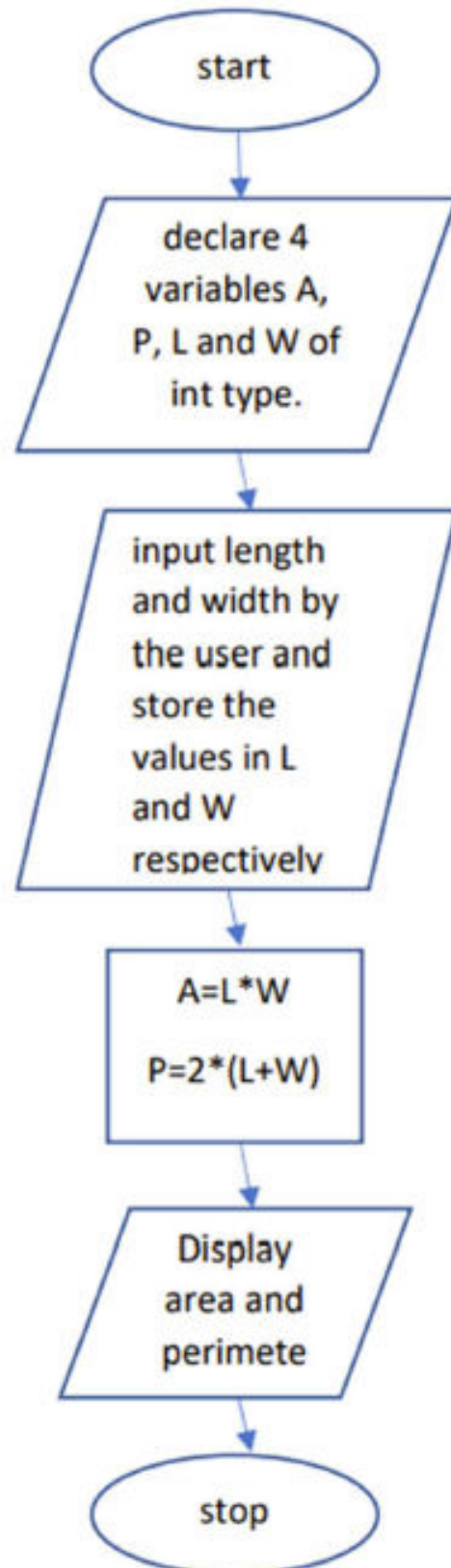
Homework Questions:

1.

Algorithm:

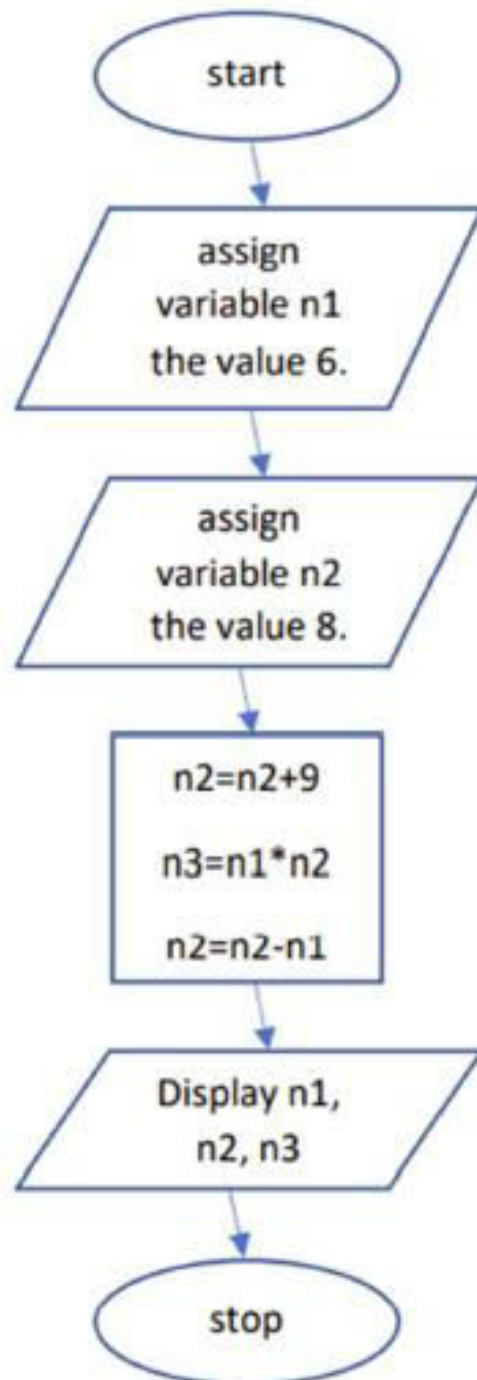
step1	start
step2	declare 4 variables A, P, L and W of int type.
step3	input length and width by the user and store the values in L and W respectively.
step4	$A = L * W$ $P = 2 * (L + W)$
step5	display area and perimeter
step6	stop

Flowchart:



2.

Flowchart:



3.

Algorithm:

step1	start
step2	declare variable mks of int type
step3	take input from user and store it in mks
step4	if marks \geq 90 then display A grade
step5	else If 80 \leq marks $<$ 90 then display B grade
step6	else If 65 \leq marks $<$ 80 then display B grade
step7	else display D grade
step8	stop

