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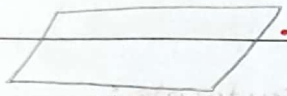
DAY-1

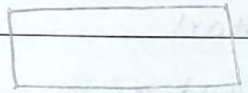
→ Flow charts:

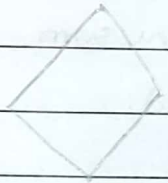
flowchart is a graphical Representation of an algorithm. programmers often use it as program planning tool to Solve a problem.

→ Componerds in flow chart:

 → terminator (used to start/end the flowchart)

 → Input/output block.

 → Process block.

 → Decision making block.

* Arrow's indicate the flow of process.

Pseudo Code:

Generic way of representing your algorithm in textual form

Example's:

* Difference of two numbers

① Read a & b

② difference = a-b

③ print difference.

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* Print the avg of two numbers a & b

① Read a & b

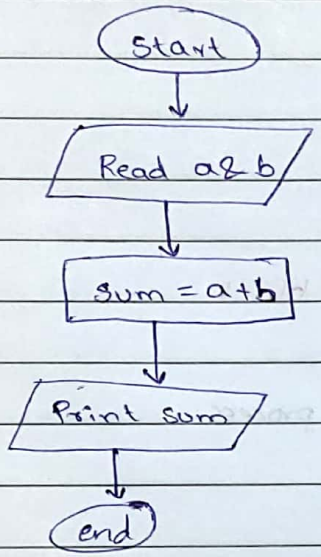
② avg = $\frac{a+b}{2}$

③ Print avg

Flowchart practice :

① Add 2 numbers by taking Input

flowchart:



Pseudocode :

① Start

② Read a & b

③ sum = a+b

④ Print sum

⑤ end.

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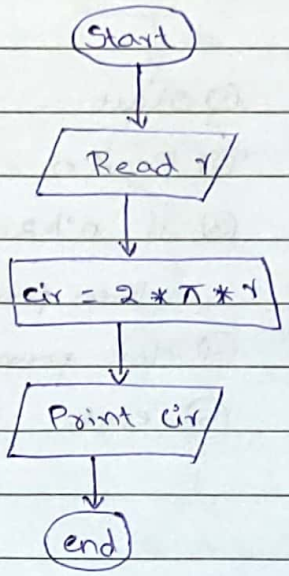
② Find Circumference of a circle.

Flowchart :

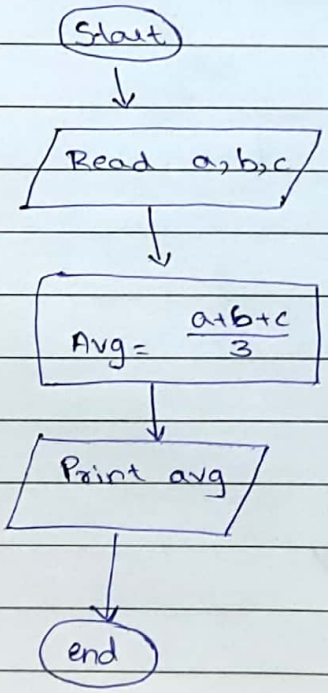


Pseudo code :

① Start
② Read r
③ cir = 2 * π * r
④ Print cir
⑤ exit

③ Avg of three numbers a, b, c.

Flowchart :



Pseudo code :

① Start
② Read a, b, c
③ avg = $\frac{a+b+c}{3}$
④ Print avg
⑤ end.

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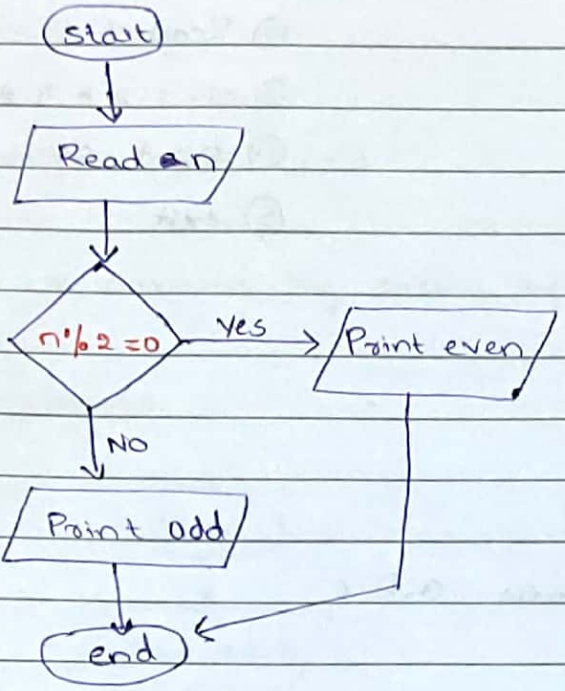
④ Check number is ODD or Even

Flowchart:



Pseudo code :

① Start
② Read n
③ if n%2 = 0,
then print even
④ else print odd
⑤ end.

5) Students & Grade flowchart

Marks		Grade
>=90	→	A
>=80	→	B
>=60	→	C
>=40	→	D
< 40	→	F

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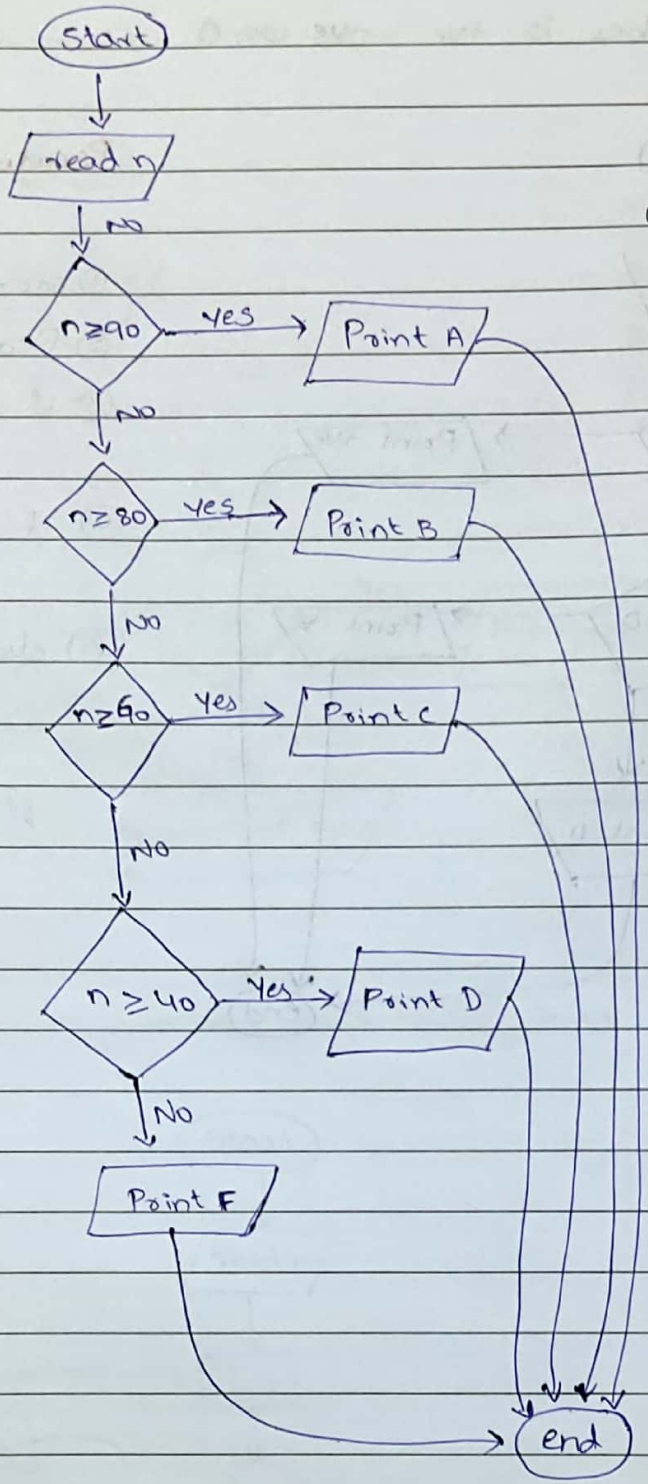

Pseudo code:

① Start

② if $n \geq 90$
then point A

③ elif $n \geq 80$
then point B

④ else if $n \geq 60$
then point C

⑤ elseif $n \geq 40$
then point D

⑥ else point F

⑦ end

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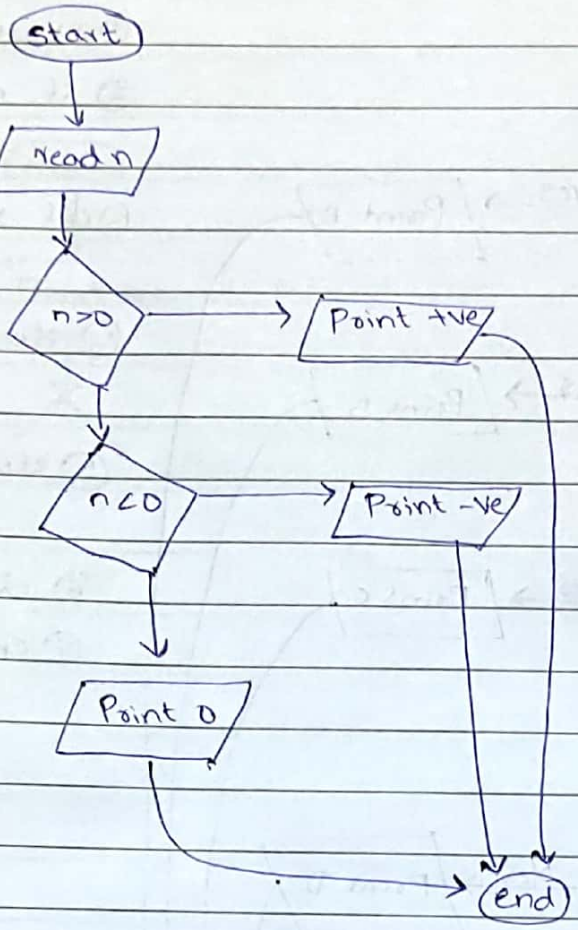
6) check number is +ve, -ve (or) 0



Pseudocode :

① start
② Read n
③ if n>0, then
Print +ve
④ if n<0, then
Print -ve
⑤ else print 0

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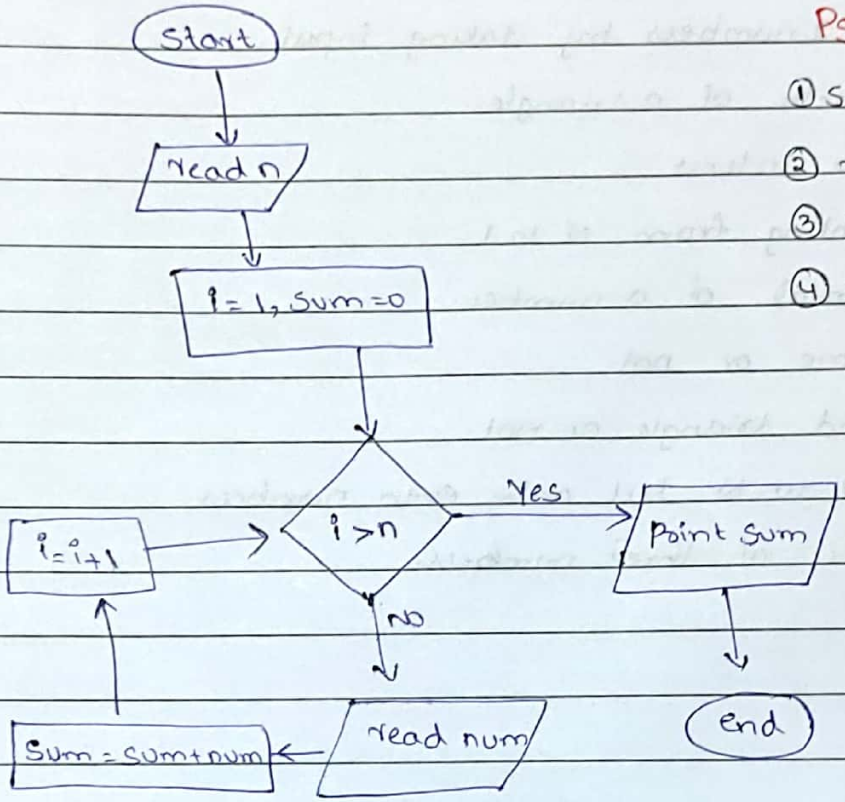
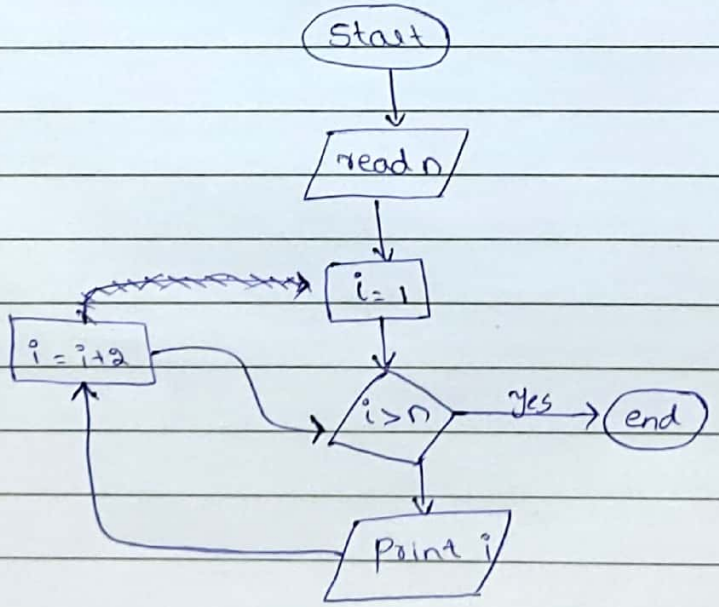
7) Add N numbers from user.



Pseudo code:

① Start
② read n
③ i = 1 , Sum = 0
④ if i > n
then print Sum & exit
⑤ else
read num
Sum = Sum + num
i = i + 1
⑥ go to step 4

8) Printing N numbers but only odd.



Pseudo code:

① Start
② read n
③ i = 1
④ if i > n then end
⑤ if else
Print i
i = i + 2.
⑥ go to step 4

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Homework

1) Multiply 2 numbers by taking input
2) find perimeter of a triangle.
3) find simple interest
4) Print counting from N to 1
5) find factorial of a number
6) check prime or not
7) check valid triangle or not
8) Printing 1 to N but only even numbers.
9) print max of three numbers.