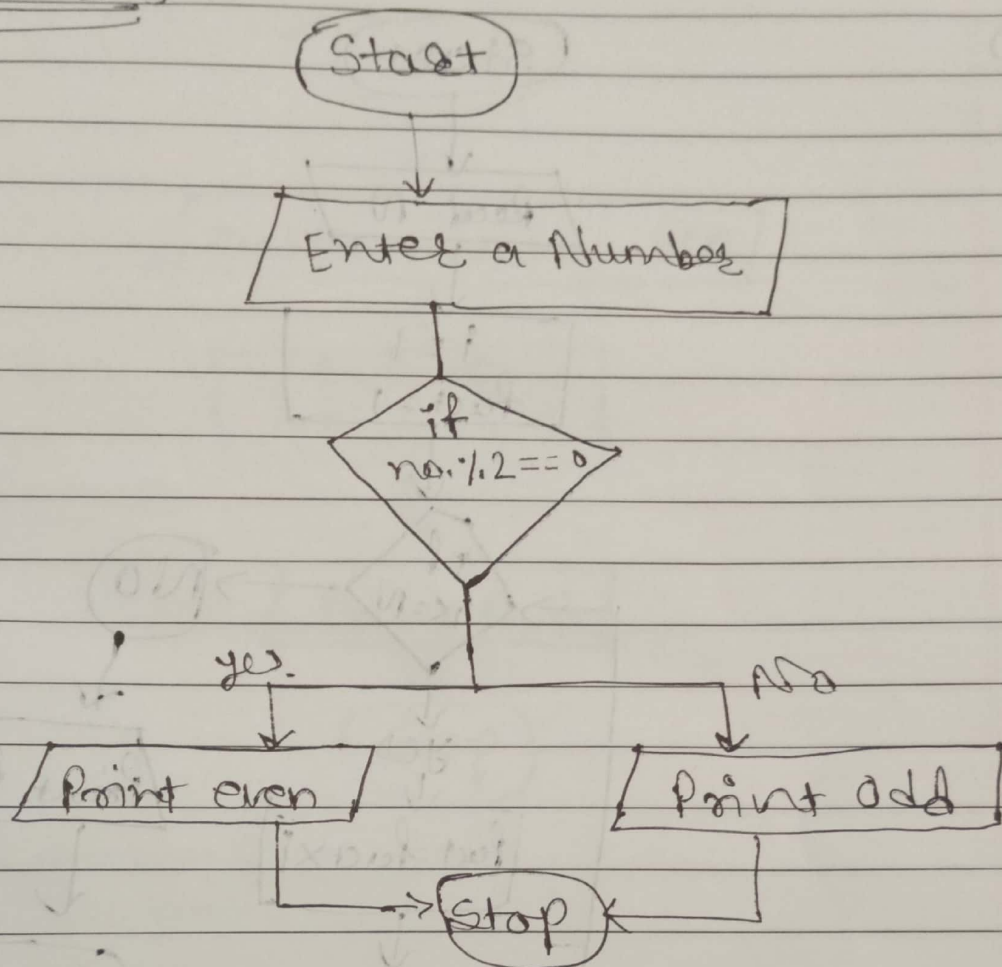


Assignment

Q.1] check if the given number is Even or odd
Flowchart

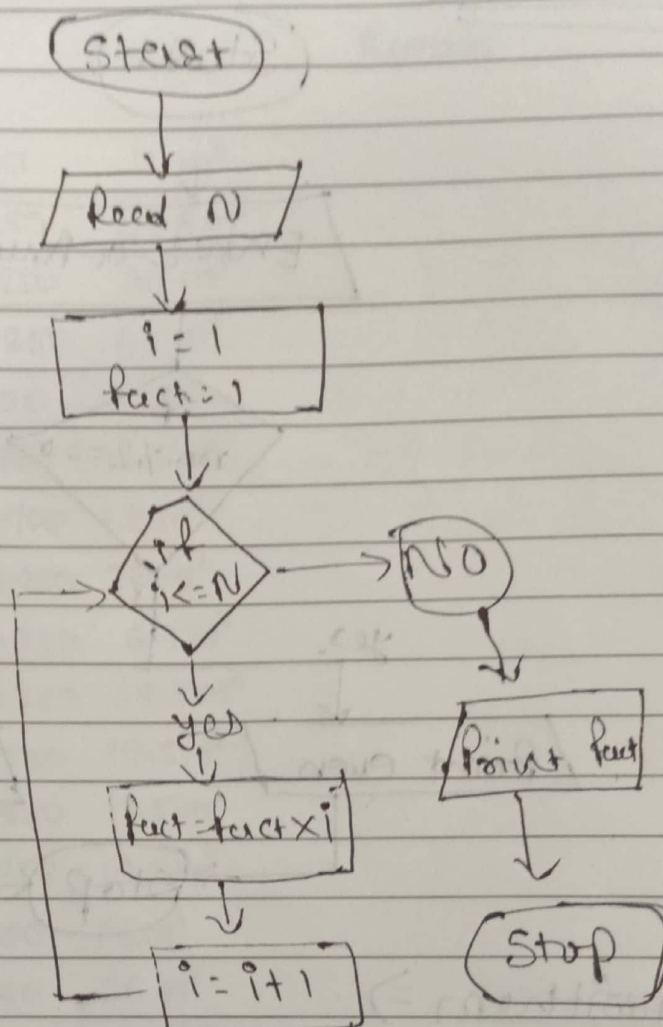


Algorithm \Rightarrow

- ① Start the program
- ② ~~Read~~ Enter the number.
- ③ if $n \% 2 == 0$ then no. is even
- ④ else no. is odd
- ⑤ display the output
- ⑥ Stop the program.

Q.2] Flowchart & algorithm for the find of factors of given no.

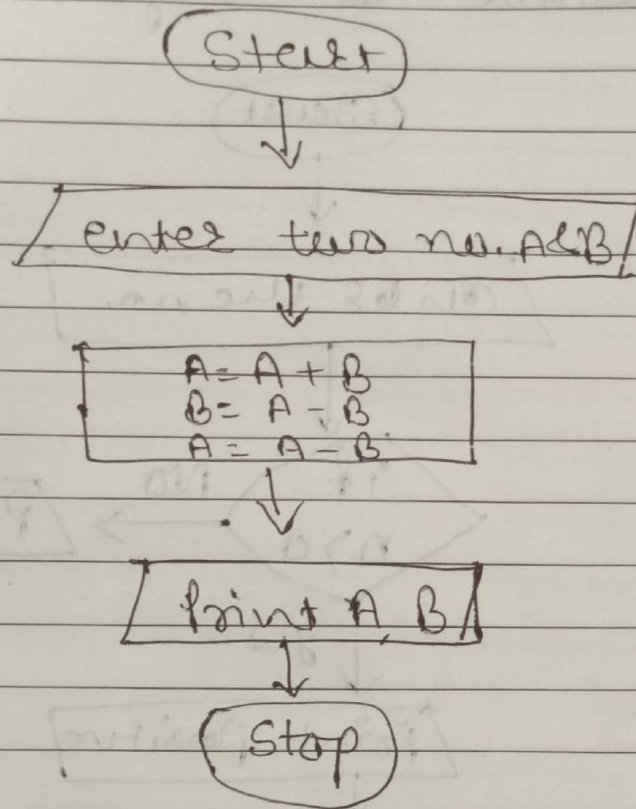
→



Algo. 2

- ① Start
- ② enter the no.
- ③ initialization of variable $i = 1$, $fact = 1$
- ④ if $i \leq N$ then go for yes ~~no~~ ~~no~~
- ⑤ Calculate $fact = fact \times i$
- ⑥ increment the i by 1 ($i = i + 1$)
- ⑦ print fact
- ⑧ stop

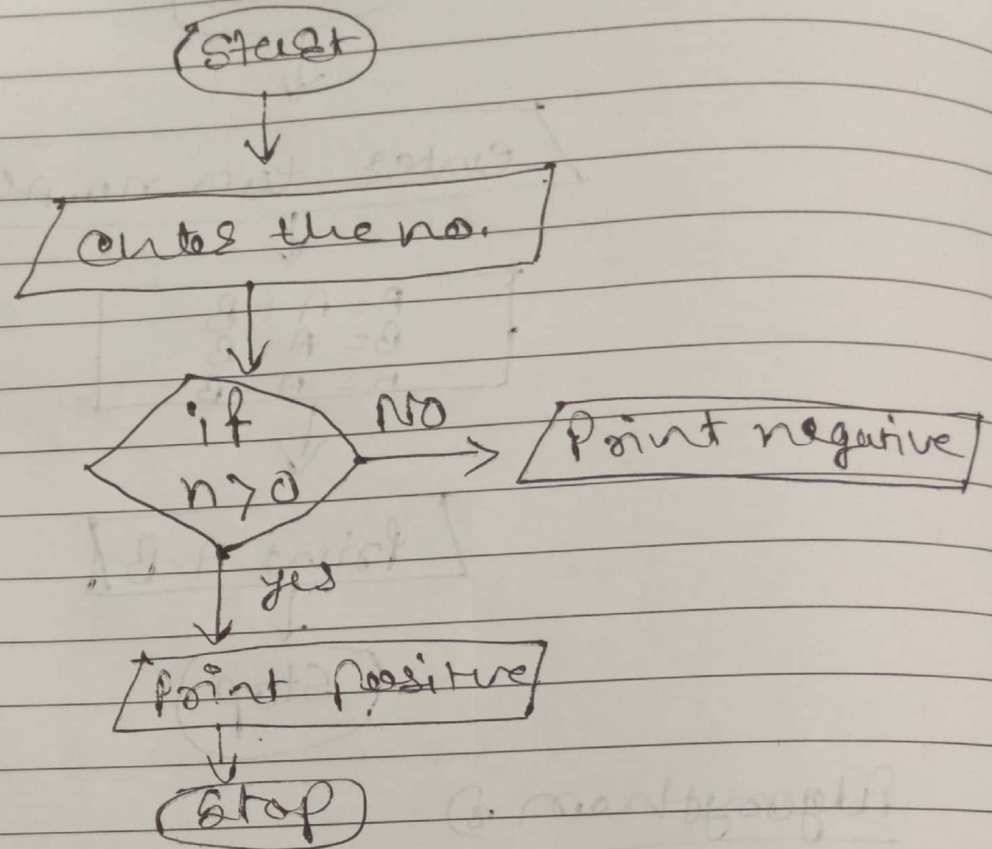
Q.3] Flowchart & Algo. for the swap of two no. without the third variable.



Algorithm 3

- ① Start
- ② enter two no. A, B
- ③ print A & B
- ④ $A = A + B$
- ⑤ $B = A - B$
- ⑥ $A = A - B$
- ⑦ Print A, B
- ⑧ End.

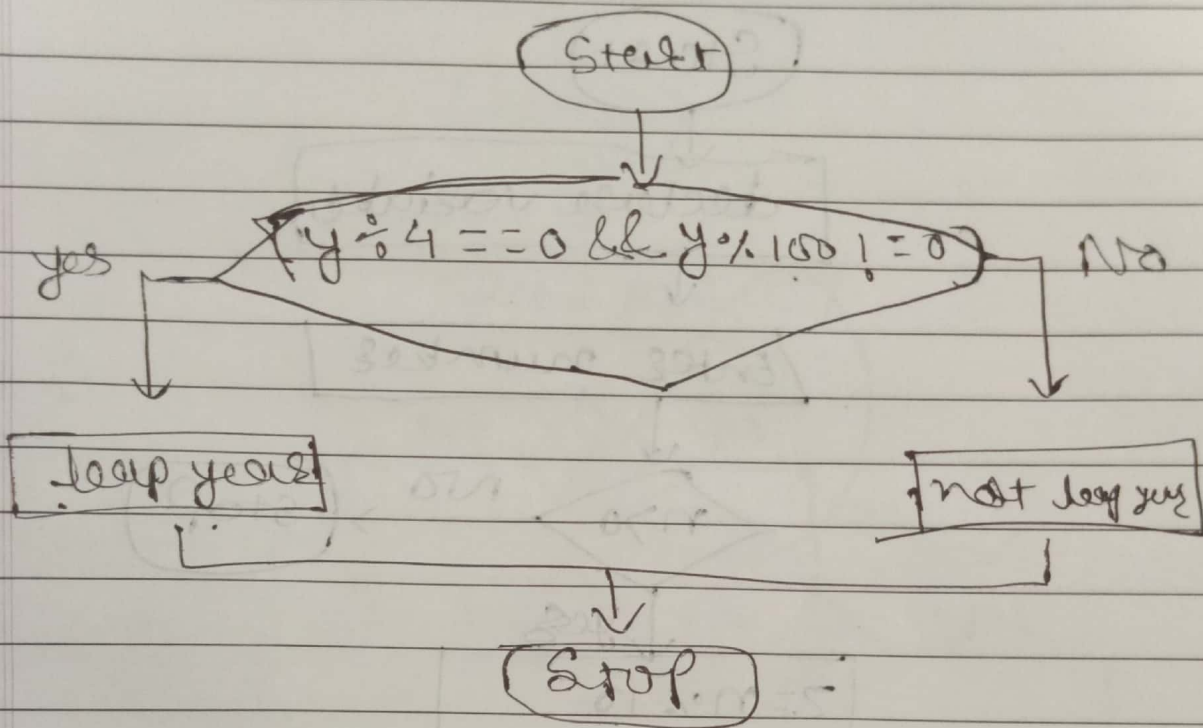
Q1) Flowchart & Algo. for the given no. is positive or negative.



Algo. :-

- ① Start the programme.
- ② enter the no.
- ③ if $n > 0$ then print positive
if $n < 0$ then print negative
- ④ stop.

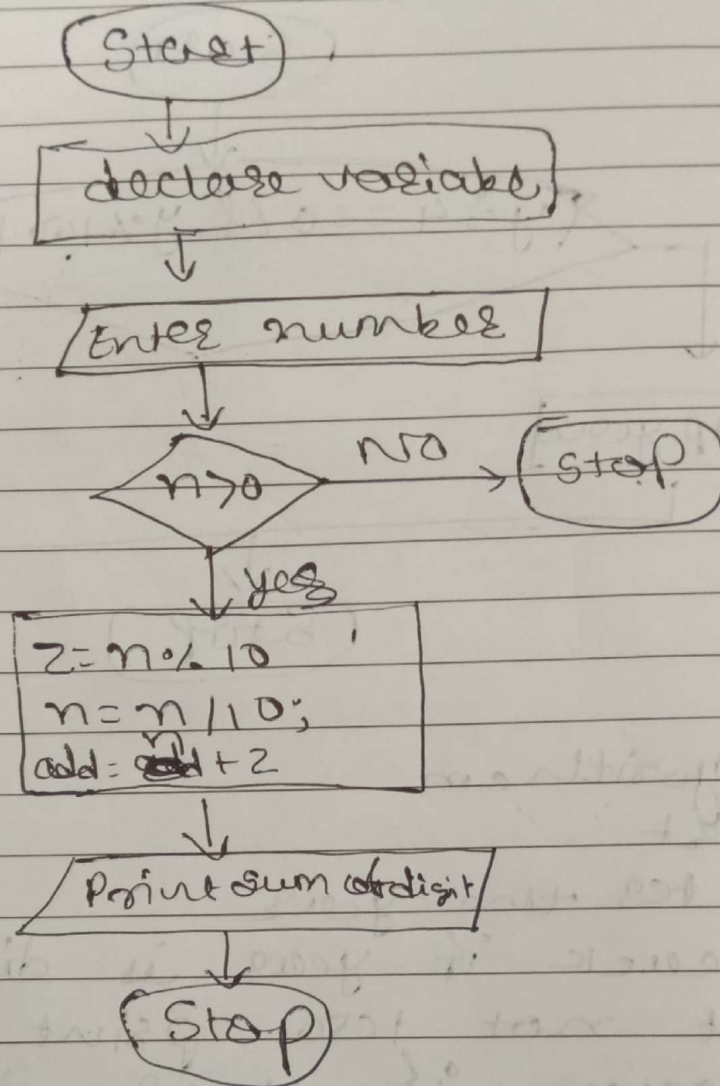
⑤ Algo. for leap year or not leap year



Algorithm

- ① start
- ② enter the year
- ③ check if year is divisible by 4 but not 100, print leap year
- ④ check if year is divisible by 400, print leap year.
- ⑤ otherwise print not leap year.

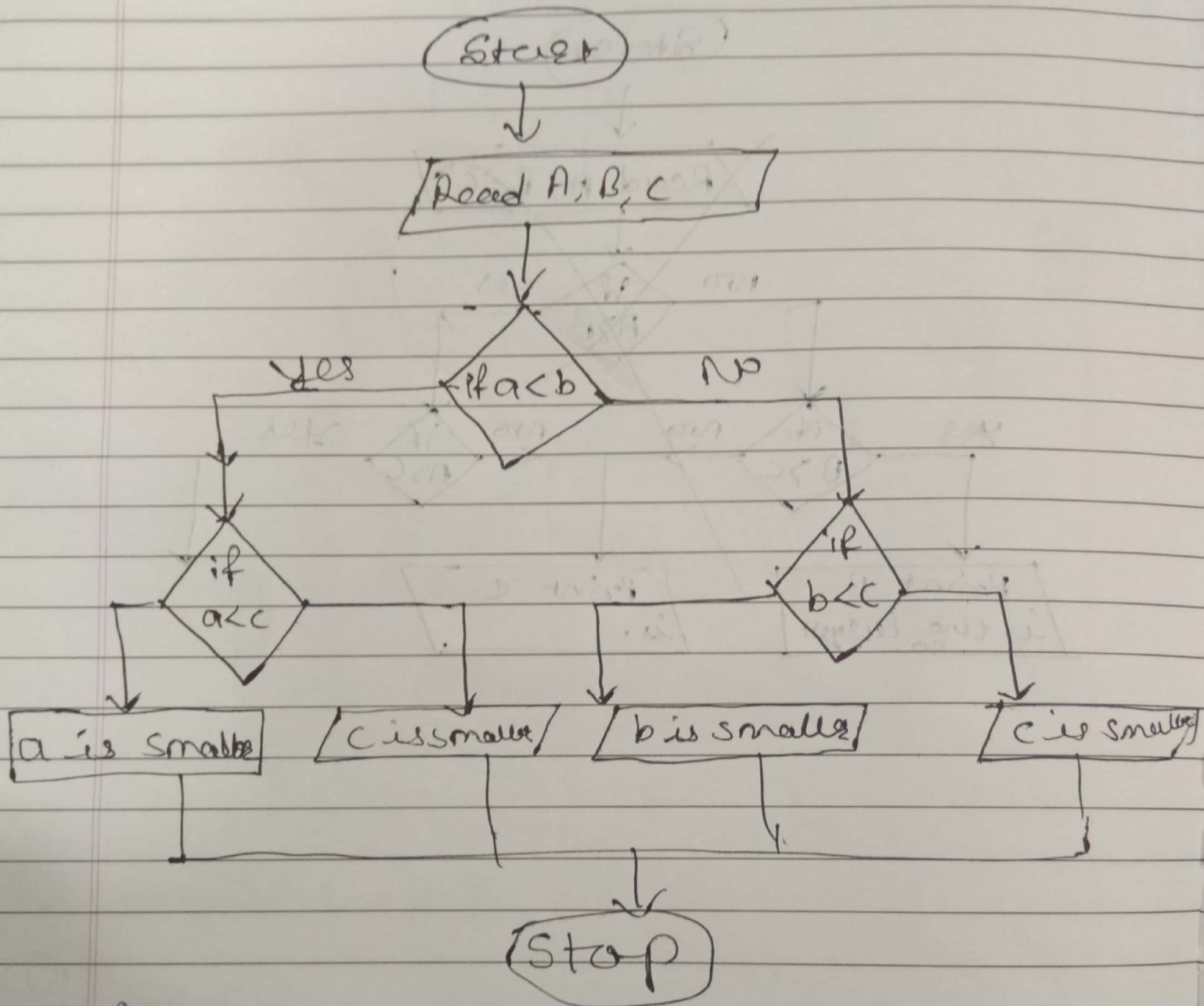
① flowchart & algo. for sum of digit.



Algorithm ①

- ① Start
- ② declare variable
- ③ enter the no.
- ④ $n \leq 0$ then ~~no~~
- ⑤ $n > 0$ then the print the digit
- ⑥ ~~add~~ Stop the programme

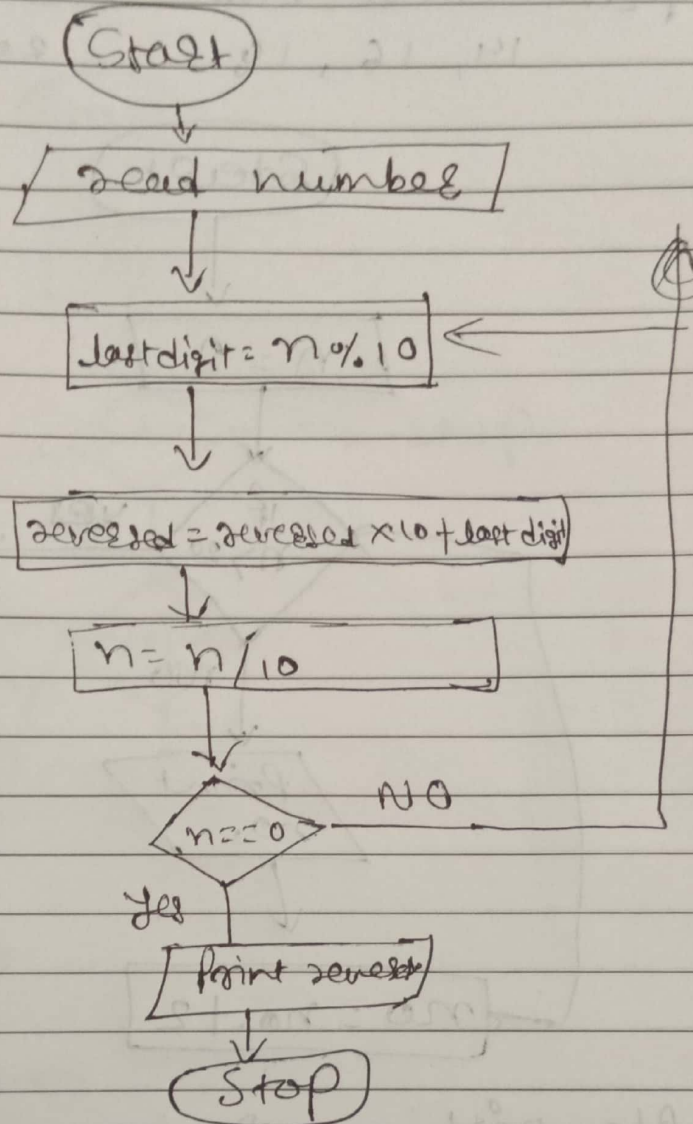
⑦ Flowchart & algo. for finding the smallest no.



Algo.

- ① ~~Start~~ Start the program.
- ② Read the three no.
- ③ Check if $a < b$ if yes then check $a < c$ if yes then a is smaller ~~if~~ if no then c is smaller.
- ④ if $a < b$ is no then check $b < c$ if yes then b is smaller if no then c is smaller.
- ⑤ stop the programme.

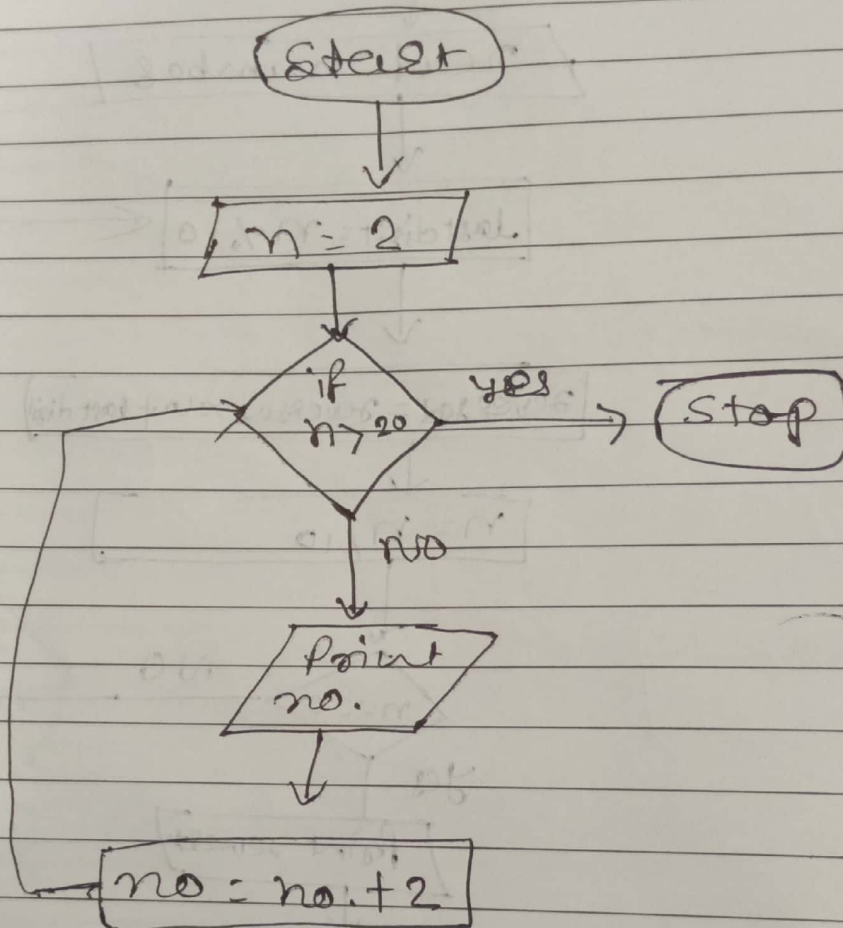
⑧ Flowchart & diagram for reverse a no.



Algorithm

- ① start
- ② read the number
- ③ declare & initialize another variable reversed with 0, reversed is int variable.
- ④ get the last digit of given no. by performing modulo division and store in last digit.
- ⑤ multiply reversed by 10 and add last digit like $\text{reversed} = \text{reversed} \times 10 + \text{last digit}$.
- ⑥ divide number by 10.
- ⑦ Repeat step 3 & 5 till the no. is not equal to 0.

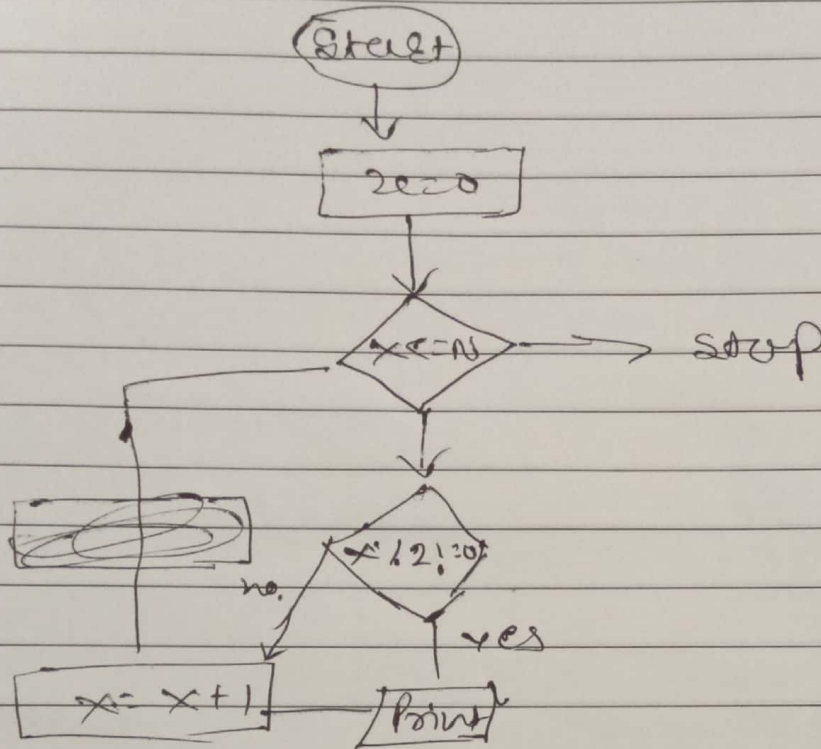
- ⑨ draw a flow chart & algo. to print even no. series 2, 4, 6, 8, 10, 12, 14, 16, 18, ... 20



Algorithm 2)

- ① Start the programme
- ② read input
- ③ if $n > 20$ if yes then stop & if it is no then print no.
- ④ Then no. $\rightarrow n + 2$
- ⑤ And the again back to Condition
- ⑥ check till $n > 20$ is true
- ⑦ stop the programme.

- 18) draw a flow chart & Algorithm to print the odd no. series.



Algorithm

- step
- ① Start program
 - ② Declare x as an integer variable
 - ③ Set $x = 0$
 - ④ Determine the value of n in integers.
 - ⑤ while ($x \leq N$), repeat the step 5-7
 - ⑥ if ($x \% 2 \neq 0$)
 - ⑦ Then print x
 - ⑧ $x = x + 1$
 - ⑨ Stop the program.