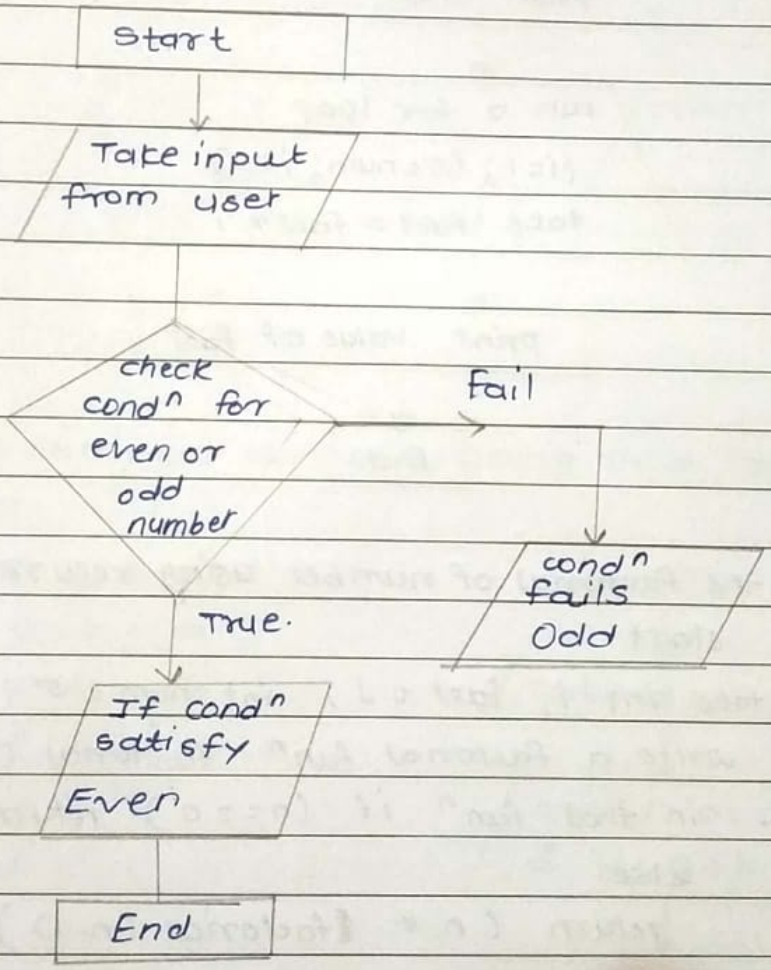
Assignment - 1

Q.1 check if the given number is even or odd.

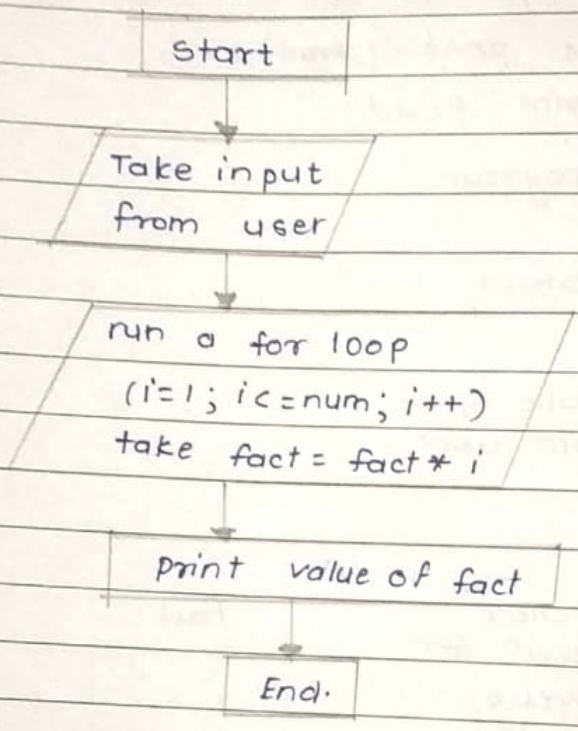
- start
- take input from user.
- check if input is odd or even by (num % 2 == 0)
  if true print (~~true~~) even.
  else print (odd)
- end of program.



Q.2. write a java program to find factorial of a given number.

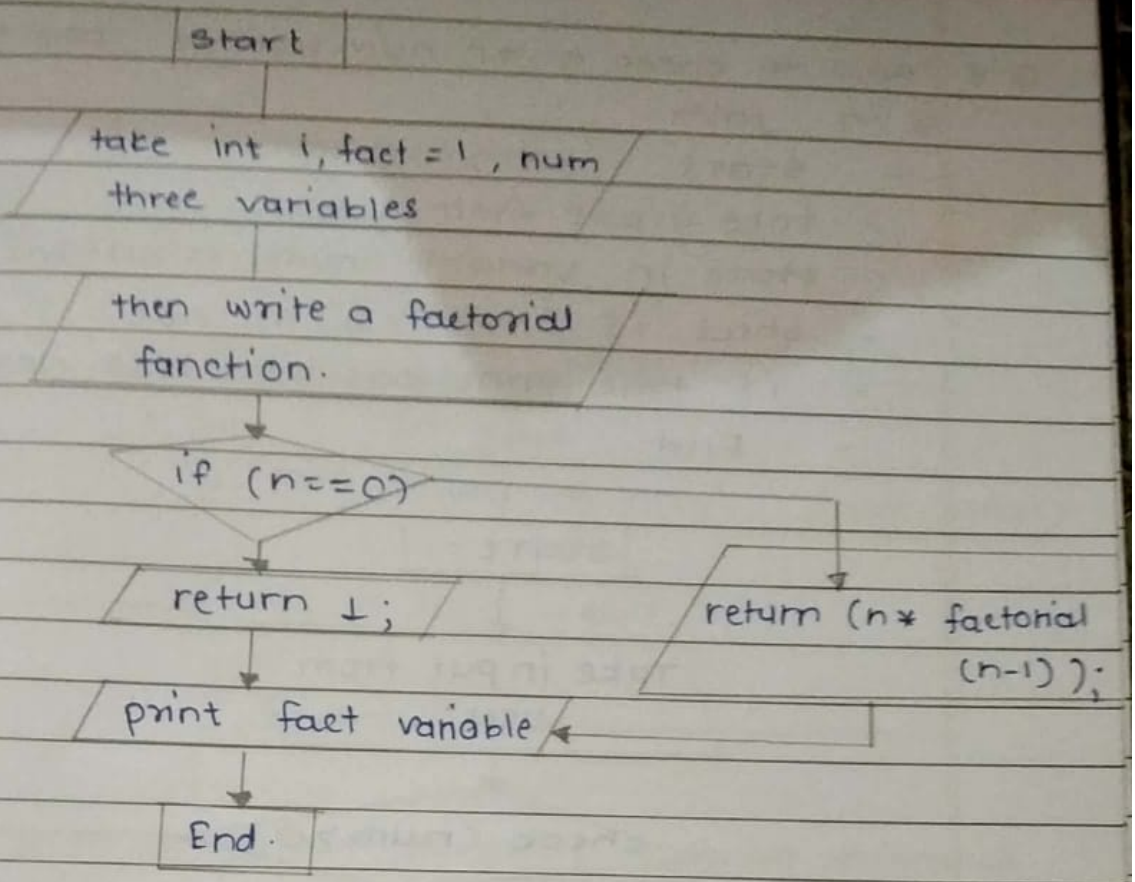
- start
- take input from user.
- check if input is greater than 0.

- then use for loop (i=1 ; i<=num ; i++)
- then fact = fact * i;
- when loop terminate print value of fact
- End.



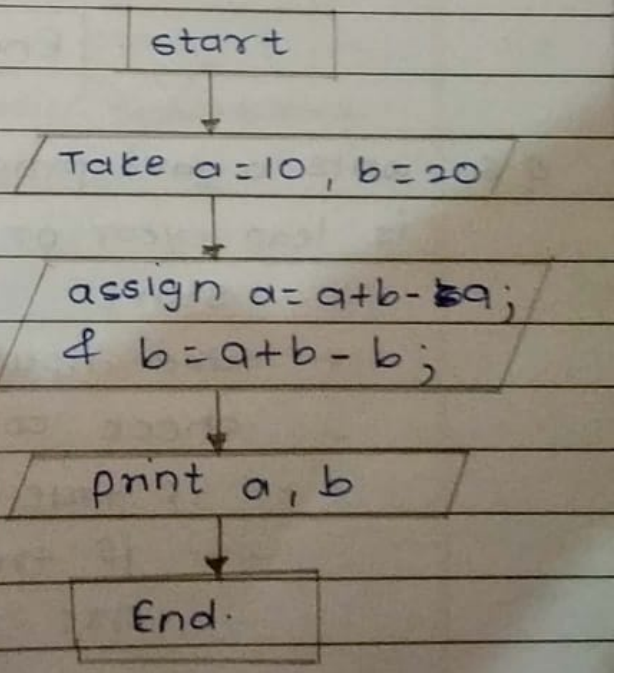
Q.3 find the factorial of number using recursion.

- start
- take int i, fact = 1; int num = 5;
- write a factorial fun^n factorial (int n);
- in that fun^n if (n==0) return 1;
  else
  return (n * factorial (n-1));
- print int fact.
- end of program.



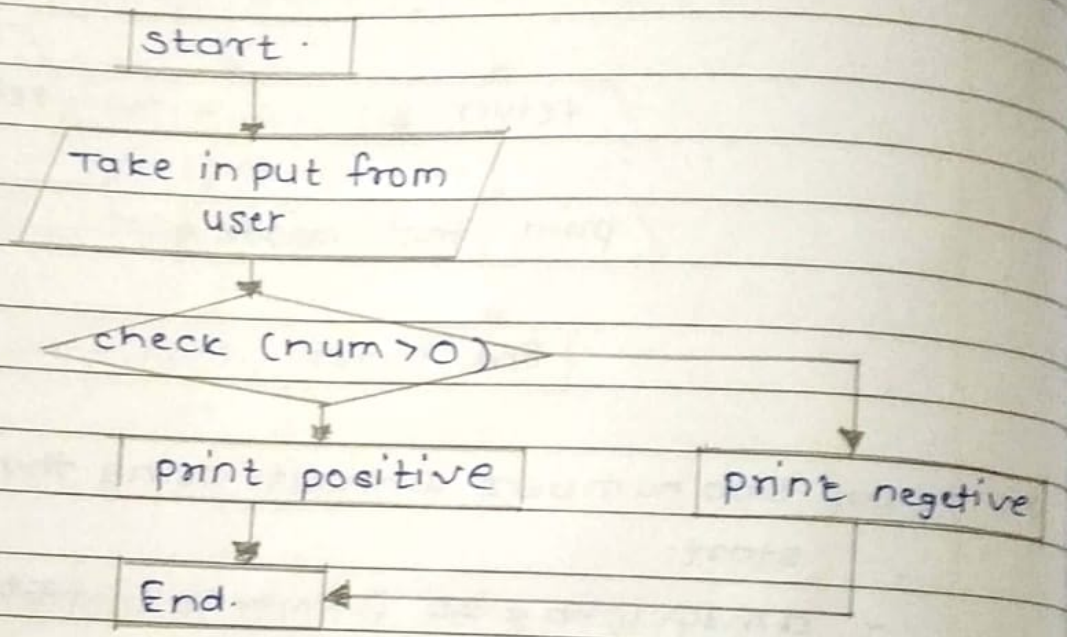
Q.4 swap two numbers without using third variable approch

- start.
- a = 10, b = 20;
  a = a+b - a;
  b = a+b - b;
- print variable 'a' and 'b'
- end.



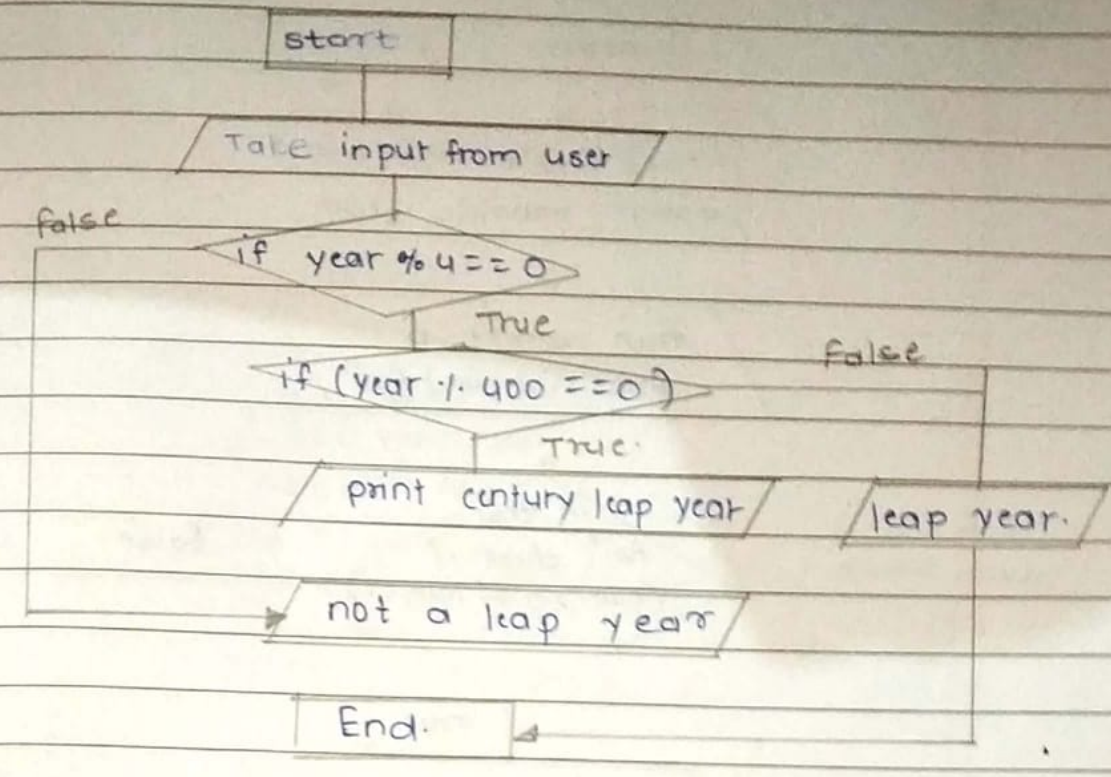
Q.5 How to check given number is positive or negative in java.

- Start.
- take input from user.
  store in variable num = sc.nextInt();
- check if (num > 0) or not
- if true print positive else negetive.
- End.



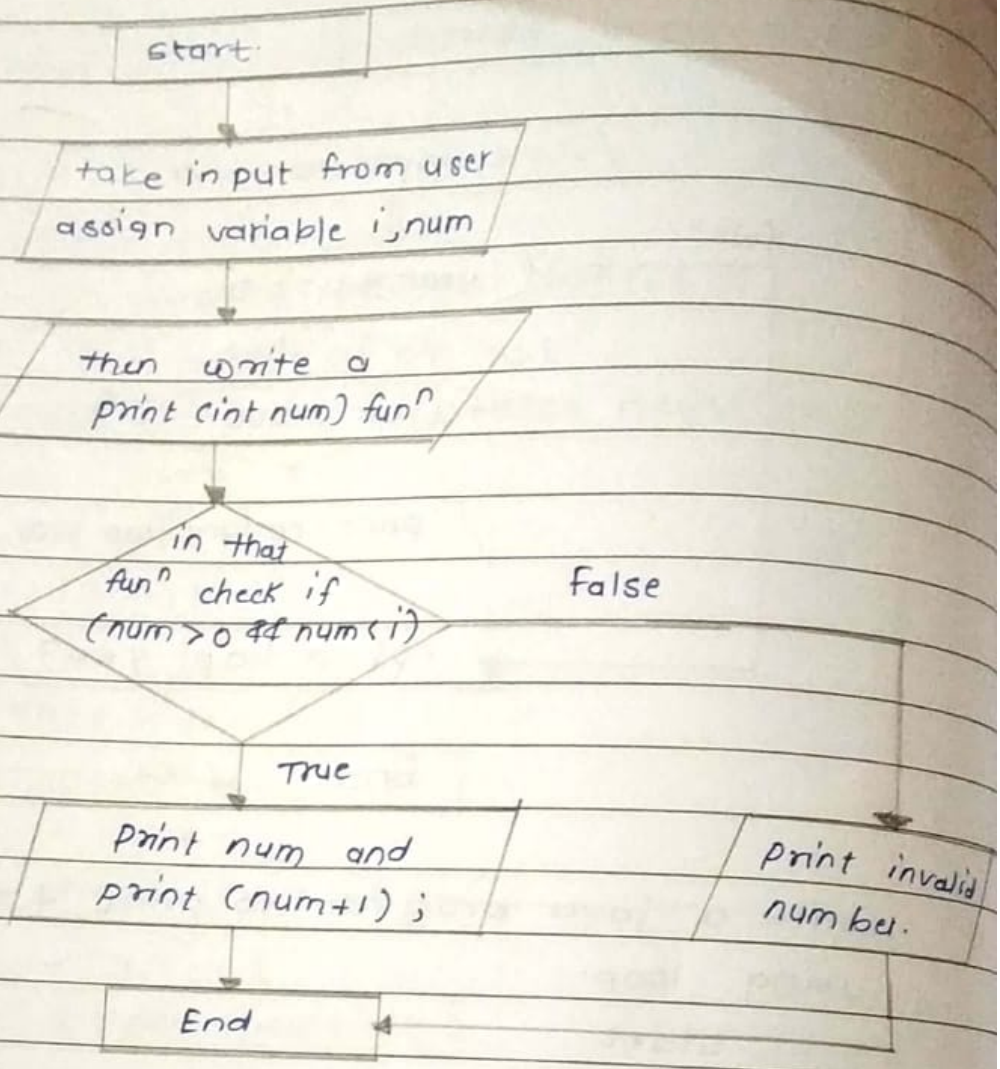
6. write a java program to find wheather given year is leap year or not.

- Start
- take input year = sc.nextInt();
- check condn (year % 4 == 0)
- if true then check (year % 400 = 20)
- if true print century leap year
  else print leap year.
- else print not leap year.
- End.



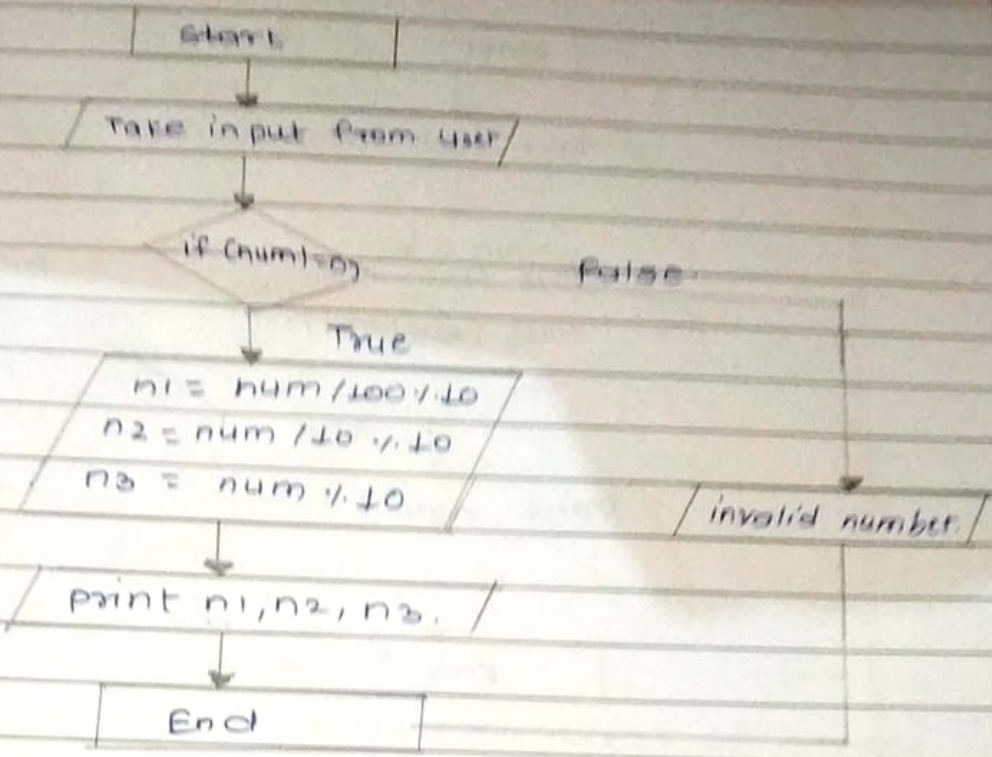
Q.7 write a java program to print 1 to 10 without using loop.

- start
- int i = 1, num ;
- write a print fun^{n}. print (int num);
- in that ~~fun~~ (if num ~~>=~~ 0) ~~then return 1~~.
  ~~else~~ ~~retur~~ (~~num + 1~~)
  print num ;
  ~~return~~ print (num+1)
- in that fun (if (num > 0 && num < 10)
  then print num
  print (num+1);
- End.



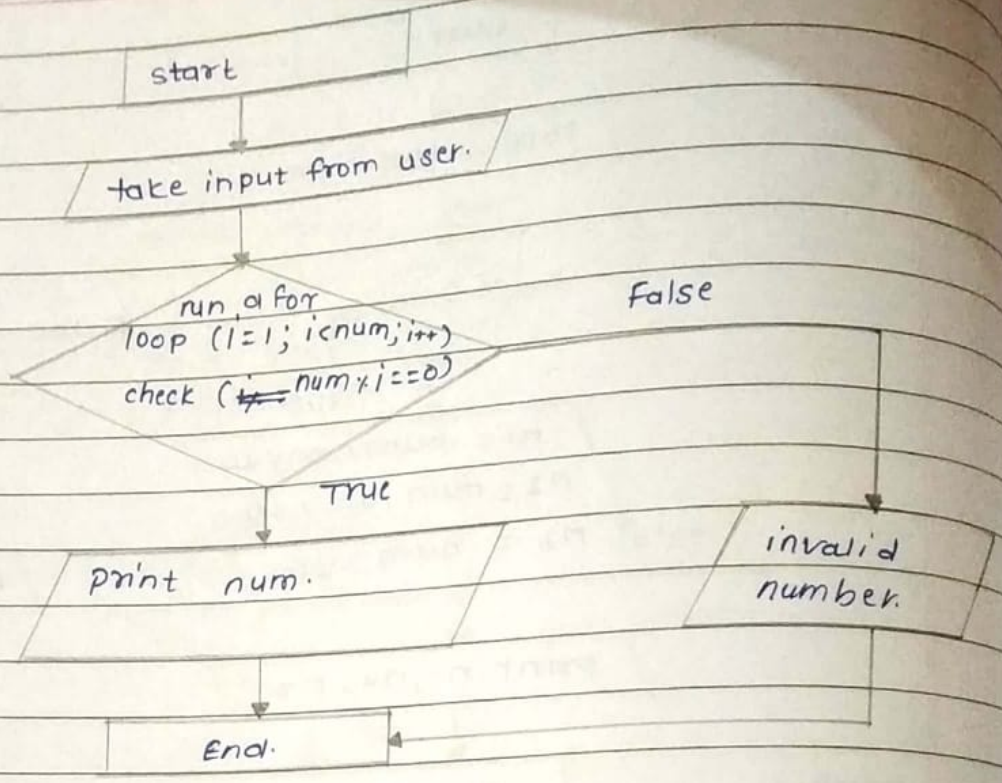
Q8. write a java program to print digits of given number.

- start
- take input from user (3 digit number)
- if (num != 0)
  int n1 = num / 100 % 10;
  int n2 = num / 10 % 10;
  int n3 = num % 10;
- print n1, n2, n3
- End.

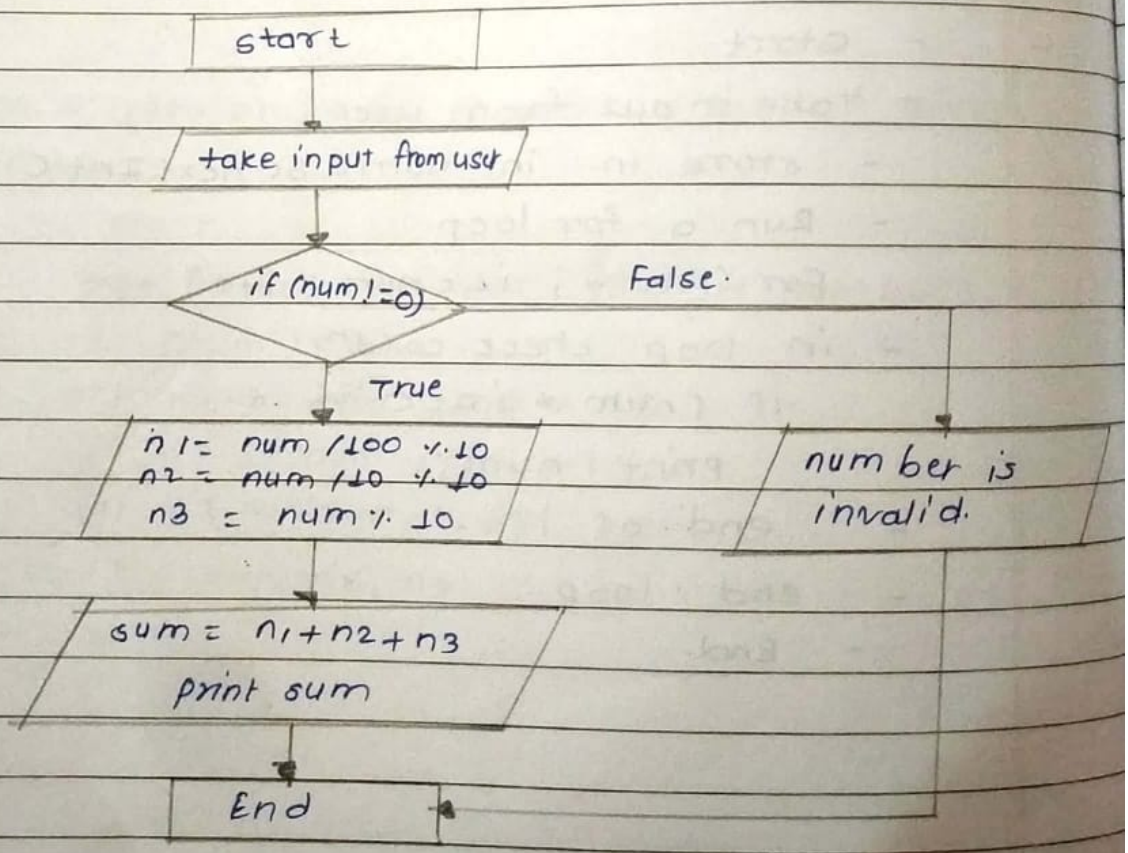


Q.9 write a Java program to print all the factors of given number.

- Start.
- Take input from user.
  - store in int num = sc.nextInt();
  - Run a for loop
    for (i=1; i<=num; i++)
- in loop check condn.
    if (num % i == 0)
      print num;
- end of if.
- end loop
- End.



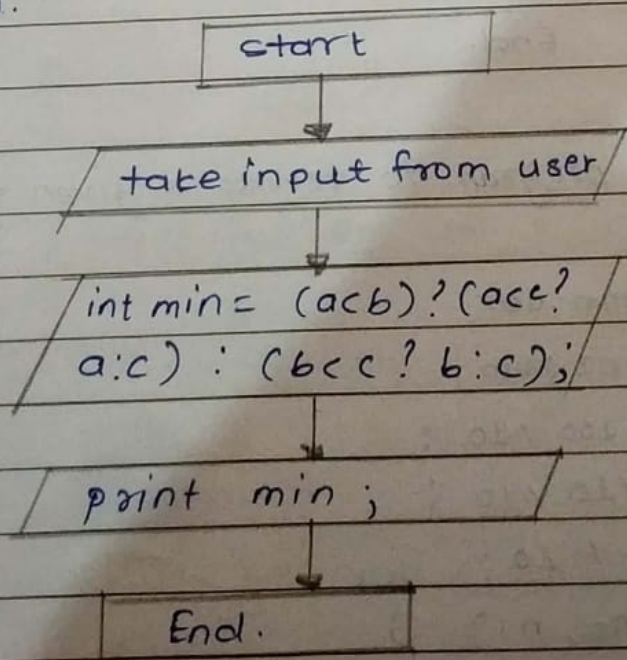
Q.10 write a java program to find sum of digits of given number.



- start
- Take input from user.
- int num = sc.nextInt();
- if (num != 0)
{
n1 = num / 100 % 10;
n2 = num / 10 % 10;
n3 = num % 10;
}
- sum = n1+n2+n3;
- print sum
- End.

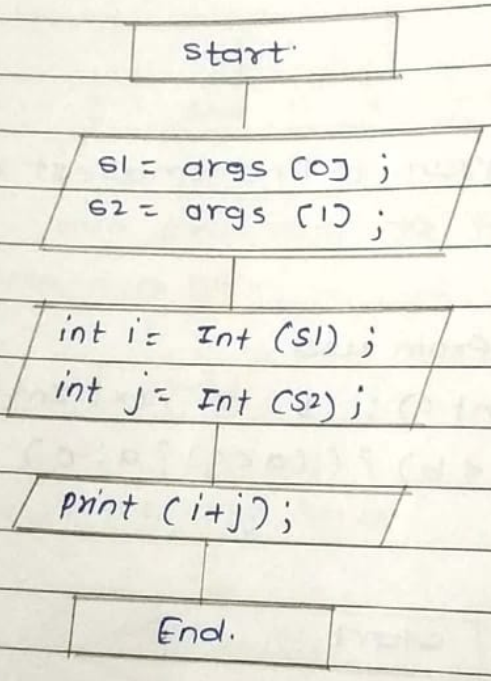
Q.11 Write a java program to find smallest of three number a, b, c.

- start
- take input from user.
- a = sc.nextInt(); b = sc.nextInt(); c = sc.nextInt
- int min = (a < b) ? ((a < c) ? a : c) : (b < c ? b : c)
- print min
- End.



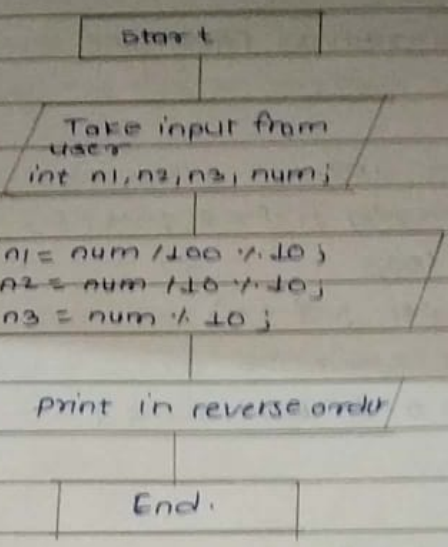
Q.12 Write a java program to add two numbers without using arithmatic operator.

- start
- string s1 = args [0];
  string s2 = args [1];
- convert string to Int.
  int i = Integer. parseInt (s1);
  int j = Integer. parseInt (s2);
- ~~add~~ then print (i+j);
- End.



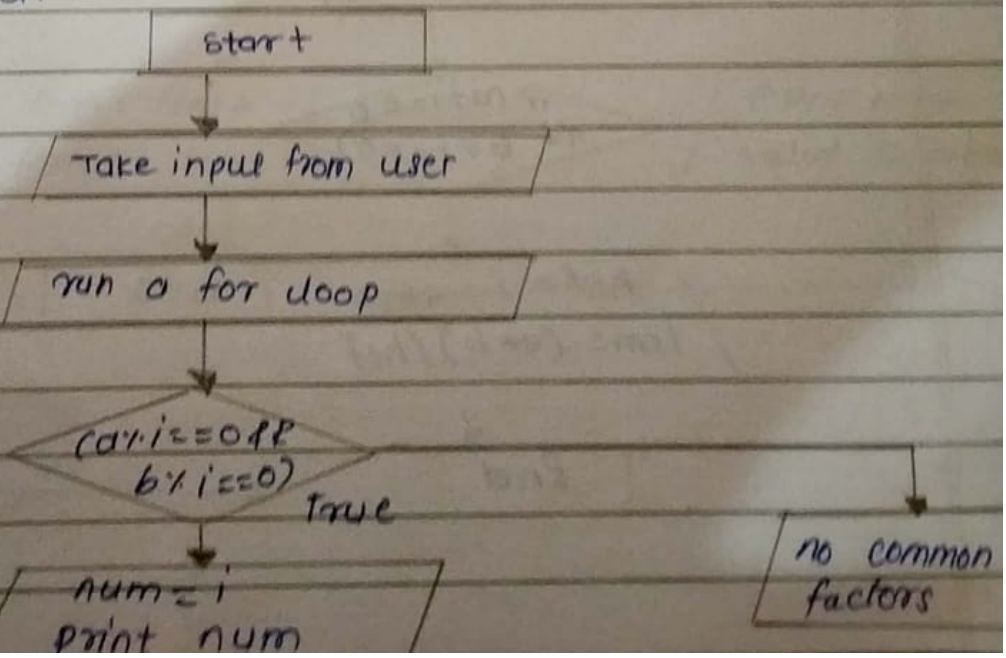
Q.13 write a java program to reverse a given number.

- start.
- take input from user.
- int n1, n2, n3, num;
  n1 = num / 100 % 10;
  n2 = num / 10 % 10;
  n3 = num % 10;
- print (n3, n2, n1);
- End.



Q.14 Write a java program to find GCD of two given numbers.

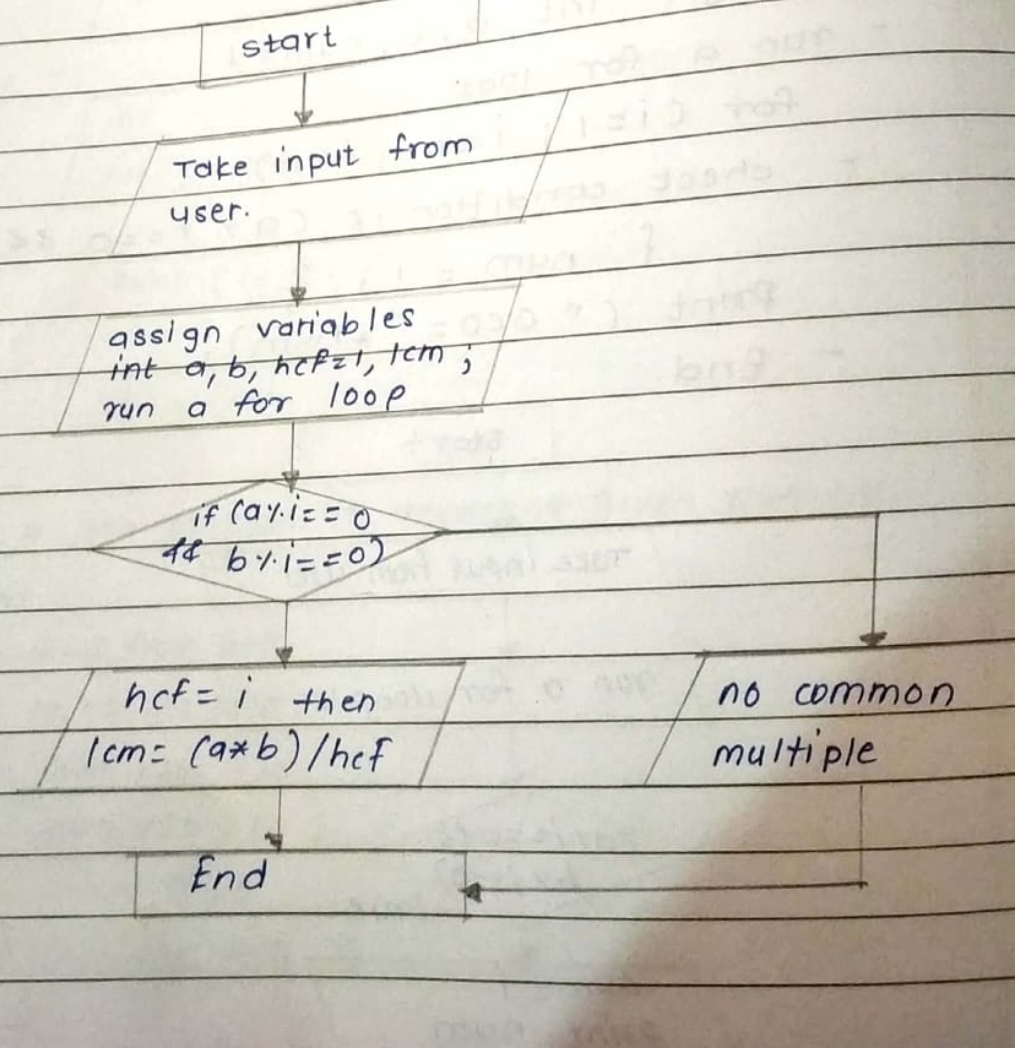
- start
- Take input from user
- assign int a, b, num = 1;
- run a for loop
  for (i = 1; i < a; i++)
  - check condition if (a % i == 0 && b % i == 0)
    { num = i; }
  Print ("GCD = " + num);
- End.



Q.15. write a java program to find LCM of two given numbers.

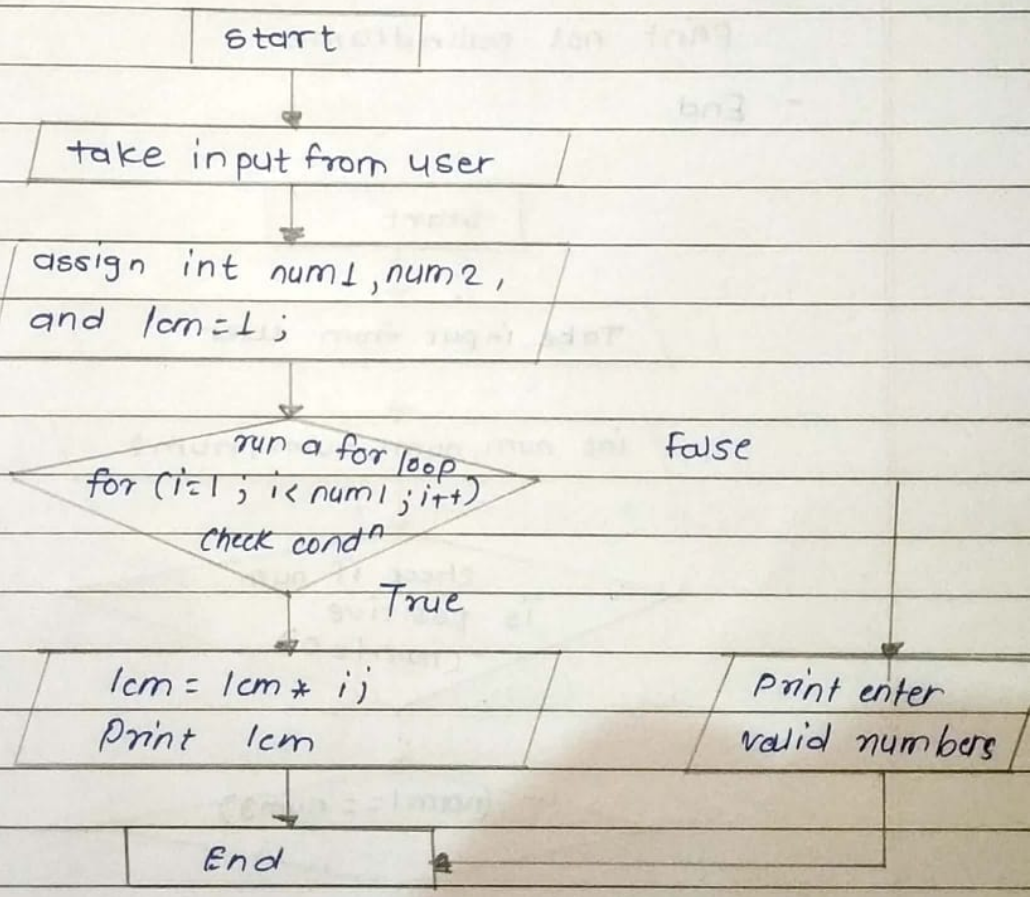
- start
- Take input from user.
- initialize int a, b, hcf = 1, LCM = 1;
- run a for loop

```
for ( i=1 ; i<a ; i++)
{
- if (a%i==0 && b%i==0)
    hcf = i;
}
- lcm = (a*b) / hcf ;
- print lCM;
- End.
```



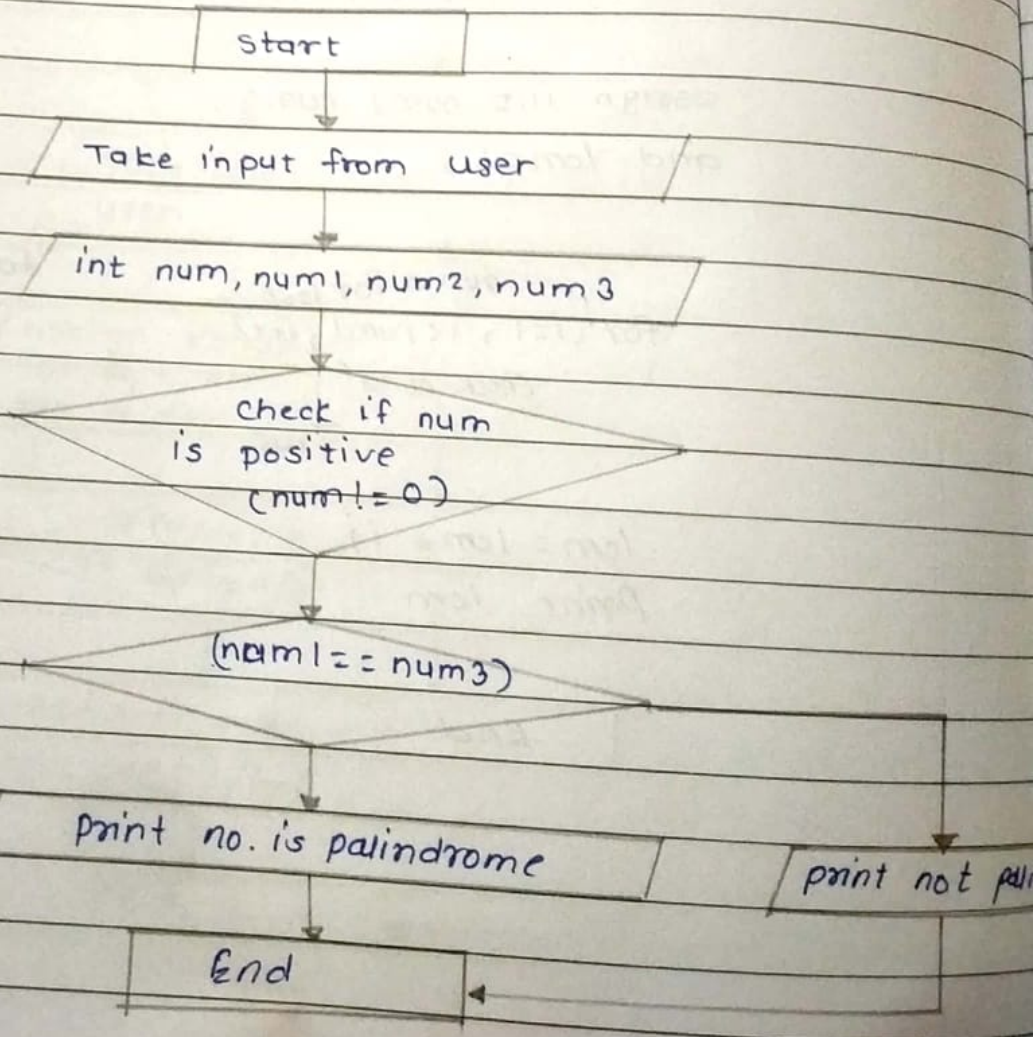
Q.16 write a java program to find lcm of two given numbers using the prime factor method.

- start.
- Take input from user
  - int num1 = sc.nextInt(); num2 = sc.nextInt();
  - int lcm=1; i;
  - run a for loop. for (i=1; i<num1 && i<num2; i++)
- If (num1 % i == 0 && num2 % i == 0)
  then lcm = num1 * i;
  - then print lcm;
  - End.



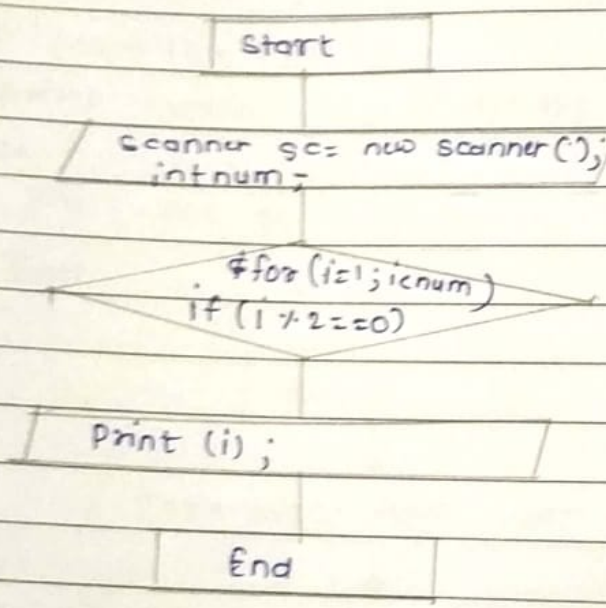
Q.13 check wheather the given number is a palindrome number.

- start
- Take input from user
- int num, num1, num2, num3 ;
- if (num != 0)
  num1 = num / 100 % 10;
  num2 = num / 10 % 10 ;
  num3 = num % 10 ;
- if (num1 == num3)
  print number is palindrome
  else
  print not palindrome
- End.



Q.19 write a java program to print series of even number.

- start
- Enter input till where you want series.
- int num = sc.nextInt();
  run a for loop for (int i=1; i<num; i++)
- if (i%2 == 0)
  Print (i);
- End.



Q.20. write a java program to print series of odd number 1, 3, 5, 7, 9, 11 ....

- Start
- take input from user
- int num = sc.nextInt();
- run a for loop

```
for (i=1; i<num; i++)
{
  if (num%2 == 1)
    Print (i)
```

- End.