

ASSIGNMENT NO-1

Roshani Shirsat

Date _____
Page _____

Que 1. Check if the given number is EVEN or ODD.

Steps- 1. Start

2. Read / Input the number

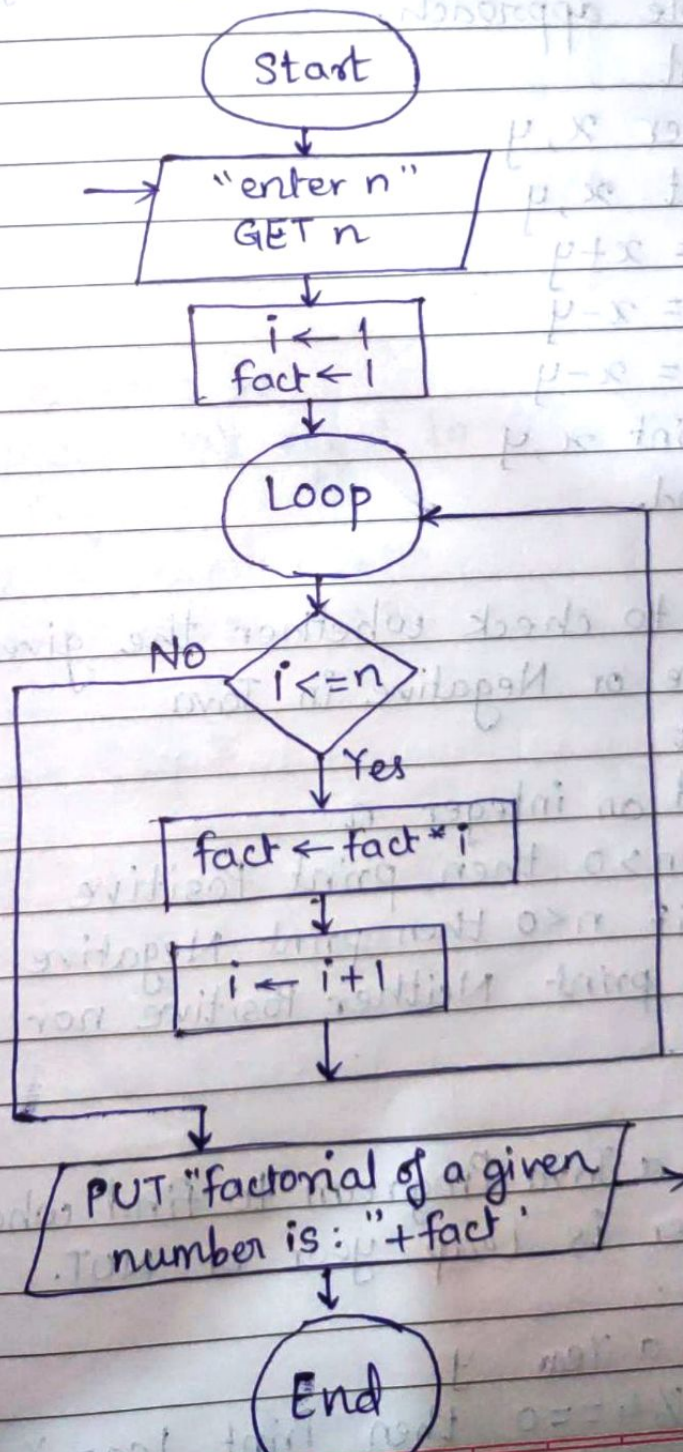
3. if $n \% 2 == 0$ then the number is even

4. else number is odd.

5. display the output

6. stop the program

Que 2. Write a java Program to find the factorial of a given number.



Que 3. Find the factorial of a number using Recursion

1. Start
2. Read number num
3. Call factorial(num)
4. If $\text{num} = 0$ then return 1
5. Else if $\text{num} < 0$ then return -1
6. Else return $(\text{num} * \text{factorial}(\text{num} - 1))$

Que 4. Swap two numbers without using the third variable approach.

1. Start
2. Enter x, y
3. Print x, y
4. $x = x + y$
5. $y = x - y$
6. $x = x - y$
7. Print x, y
8. End.

Que 5. How to check whether the given number is Positive or Negative in Java

1. Start
2. Read an integer n
3. If $n > 0$ then print Positive
4. Else if $n < 0$ then print Negative.
5. Else print Neither Positive nor Negative.
6. End.

Que 6- Write a Java Program to find whether a given number is Leap year or NOT.

1. Start.
2. Read a Year y
3. If $y \% 4 == 0$ then Print Leap Year
4. Else print Not a Leap Year.

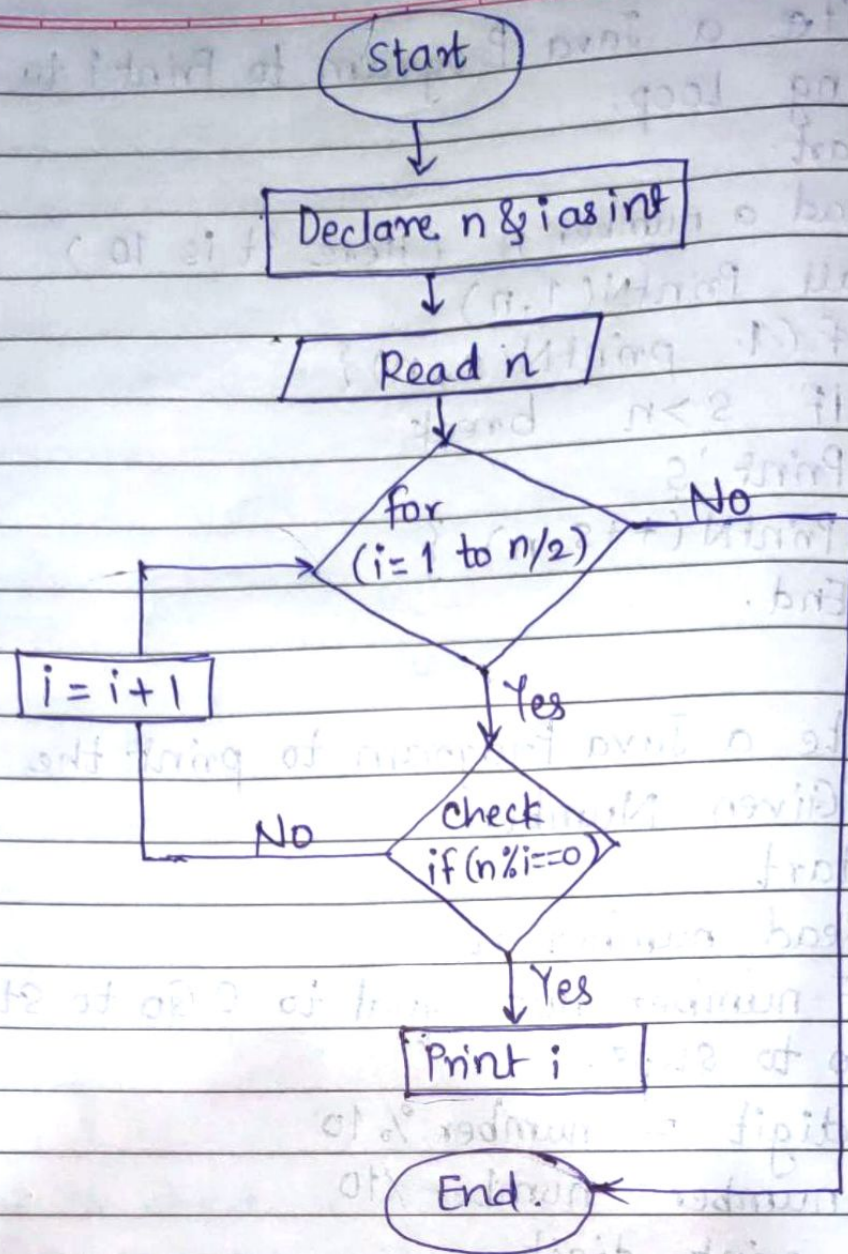
Que 7. Write a Java Program to Print 1 to 10 without using Loop.

1. Start.
2. Read a number n (Here it is 10)
3. Call PrintN(1, n)
4. if (1 printN(s , n)) {
5. IF $s > n$ break
6. Print s
7. PrintN(++ s , n) }
8. End.

Que 8. Write a Java Program to print the digits of a Given Number.

1. Start
2. Read number n
3. IF number not equal to 0 Go to Step 4, else Go to steps.
4. digit = number % 10
5. number = number / 10
6. print digit
7. Repeat step 3
8. End.

Que 9. Write a Java Program to print all the Factors of the Given number.



Que 10 Write a Java Program to find the sum of the digits of a given number.

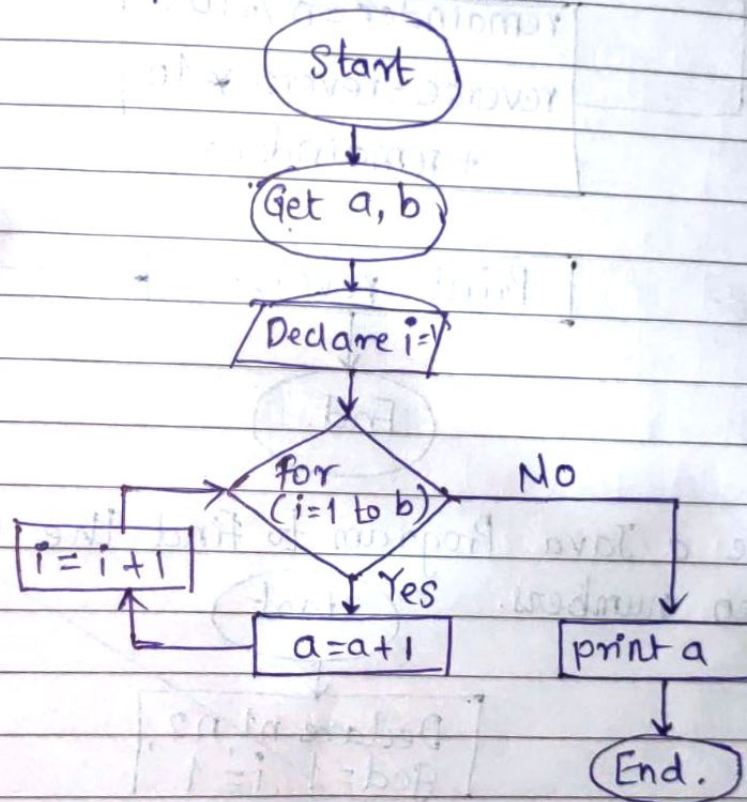
1. start
2. Read an integer n
3. Set sum = 0
4. If $n \neq 0$ Go to step 5 Else go to step 9.
5. digit = $n \% 10$
6. sum = sum + digit
7. $n = n / 10$
8. Repeat Step 4.
9. Print sum
10. End.

Que 11. Write a Java Program to find the smallest of 3 numbers (a, b, c).

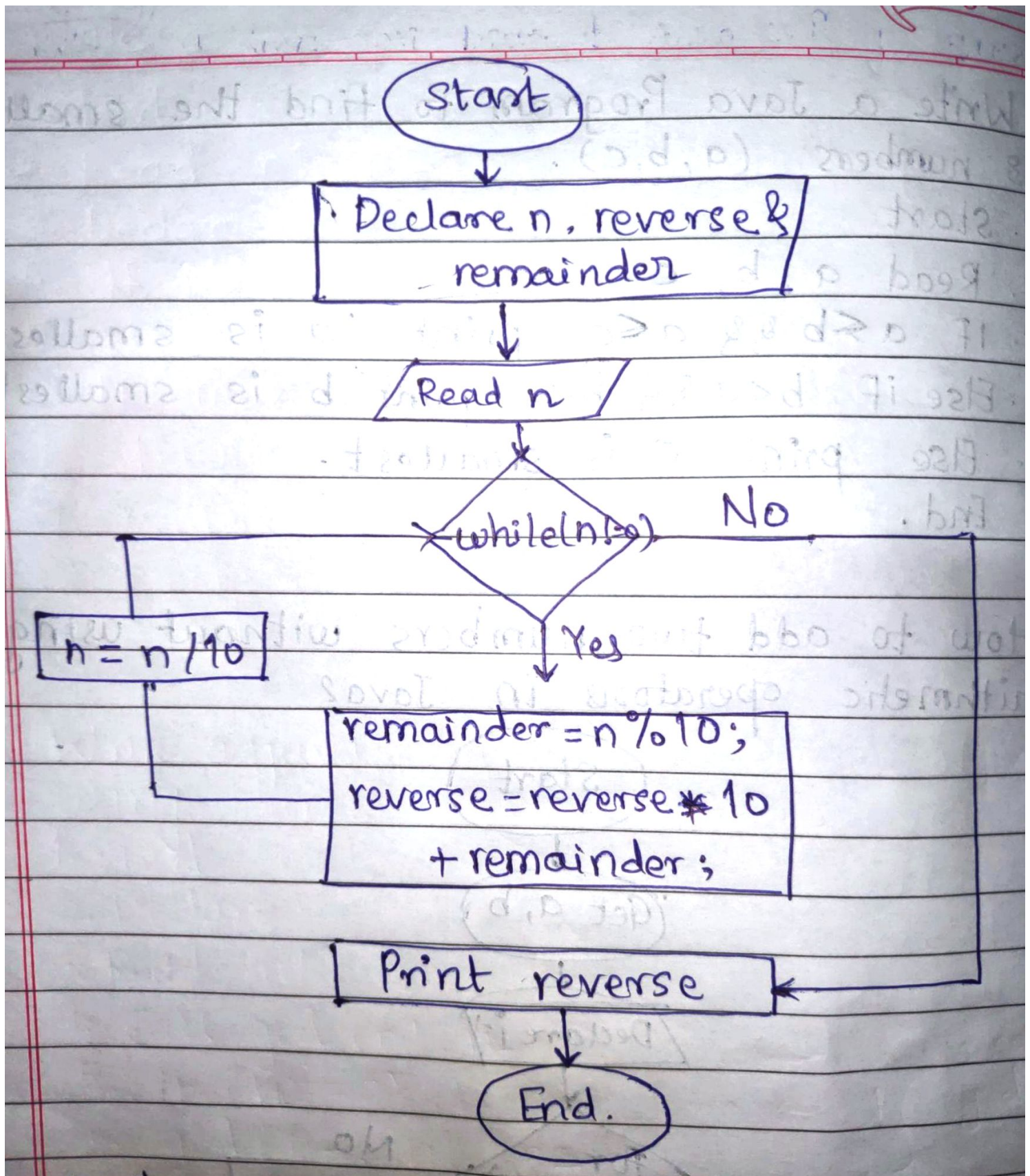
1. Start
2. Read a, b, c
3. IF $a \leq b$ & $a \leq c$ print 'a is smallest'
4. Else if $b < a$ & $b < c$ print 'b is smallest'
5. Else print 'c is smallest'.
6. End.

Que 12. How to add two numbers without using the arithmetic operators in Java?

1.



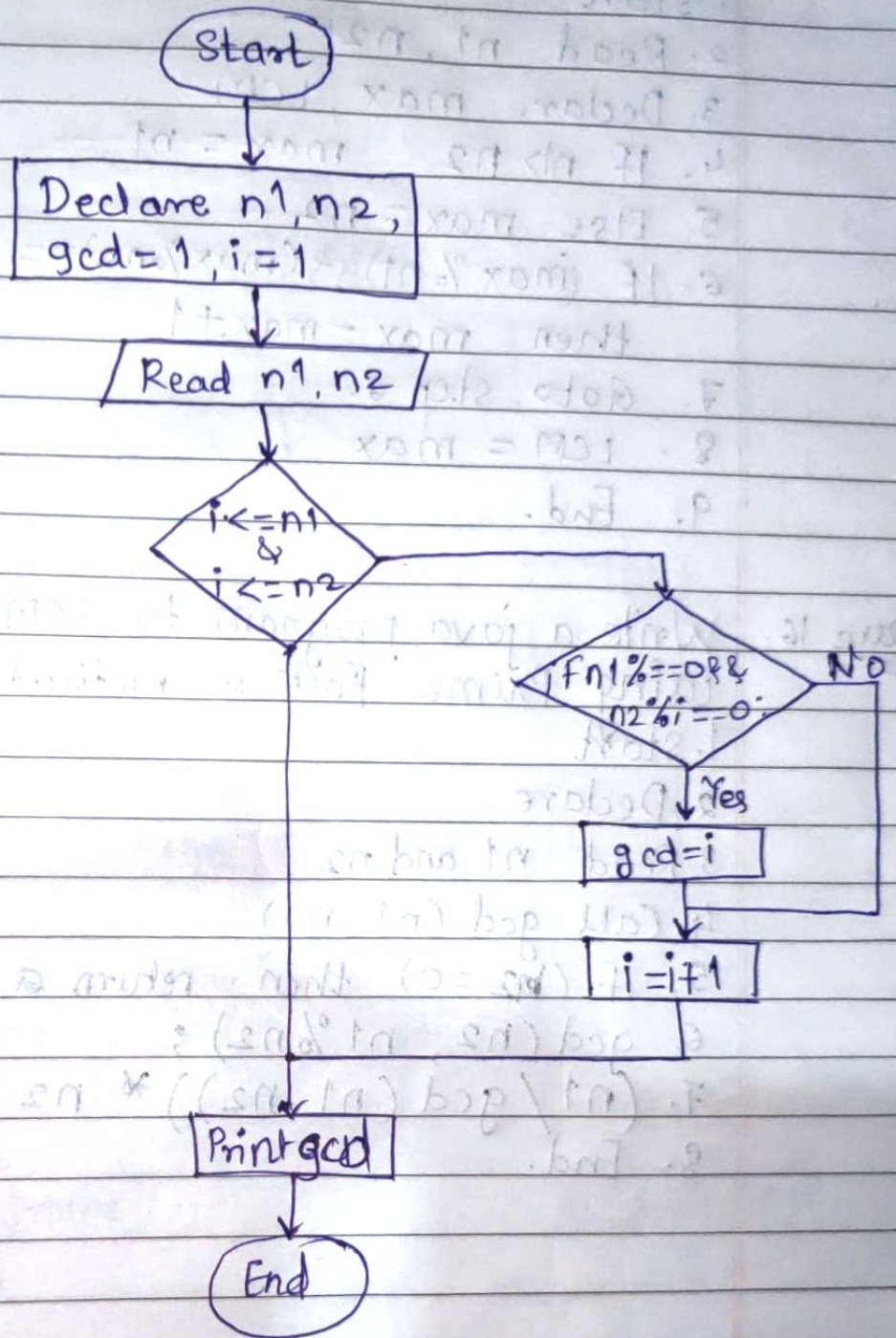
Que 13. Write a Java Program to Reverse a Given Number.



Que 14. Write a Program to find the GCD of 2 given numbers.

Date _____

Page _____



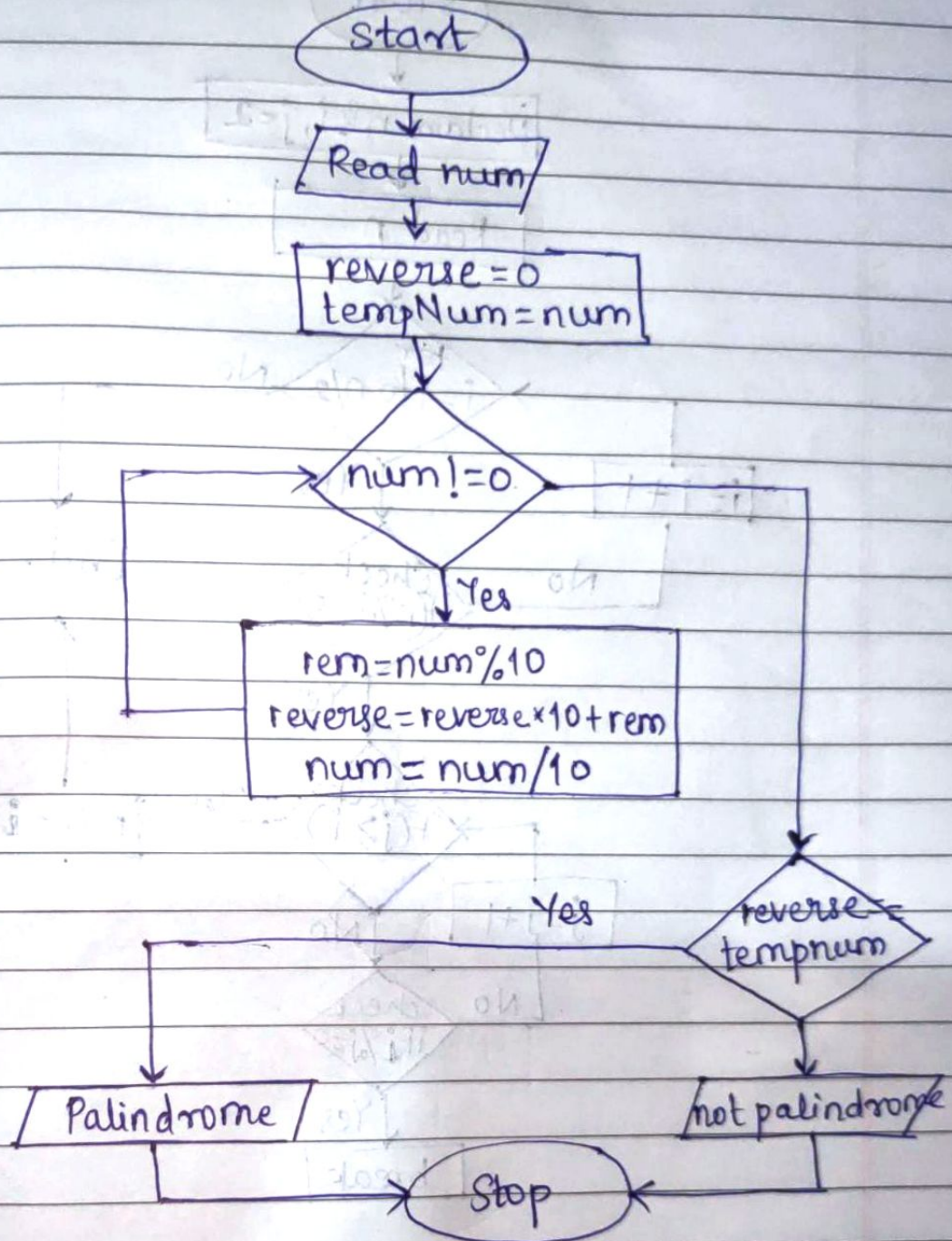
Que 15. Write a Java program to find LCM of 2 given num

1. Start
2. Read $n1, n2$
3. Declare max, LCM
4. If $n1 > n2$, max = $n1$
5. Else max = $n2$
6. If $(\text{max} \% n1) \&\& (\text{max} \% n2) == \text{False}$
then max = max + 1
7. Goto step 6.
8. LCM = max
9. End.

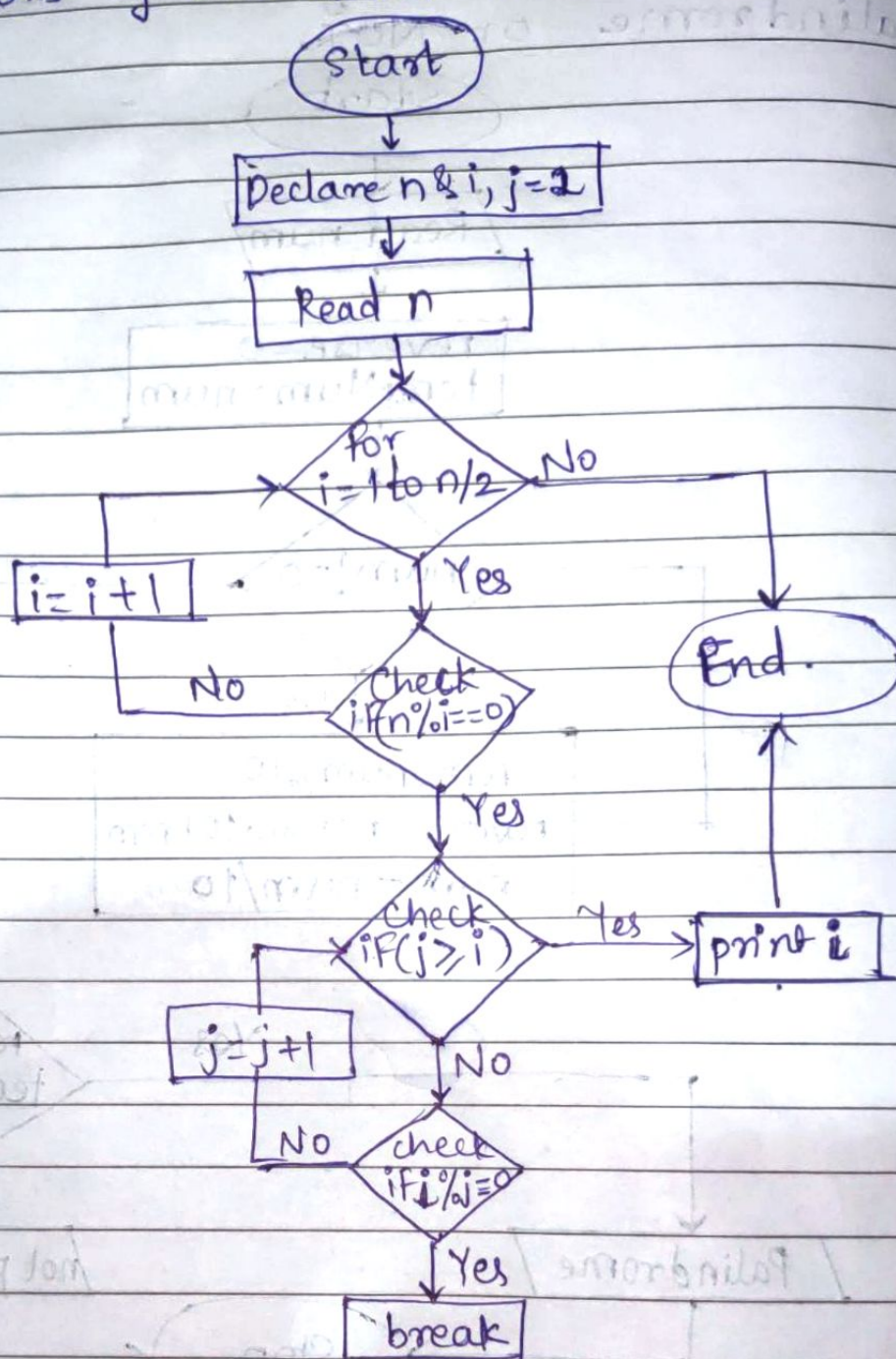
Que 16. Write a java program to LCM of 2 given num using Prime Factors method.

1. Start
2. Declare
3. Read $n1$ and $n2$
4. Call gcd($n1, n2$)
5. If ($n2 = 0$) then return $n1$ } To calculate gcd
6. gcd($n2, n1 \% n2$) ;
7. $(n1 / \text{gcd}(n1, n2)) * n2$; ... LCM
8. End.

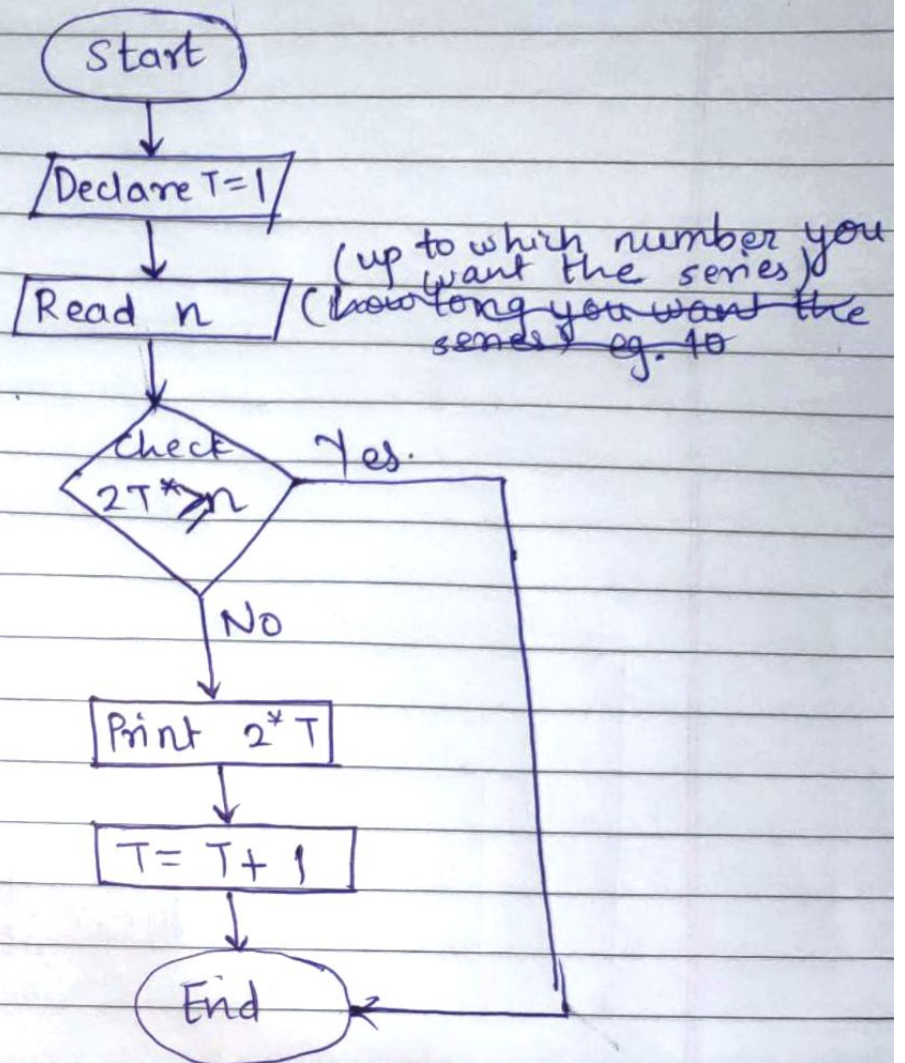
Que 17. Check whether the given number is Palindrome or NOT.



Que 18. Write a Java program to print all the Prime factors of the Given number.



Que 19. To print the following EVEN number series



Que 20 To print the following series ODD number series -

