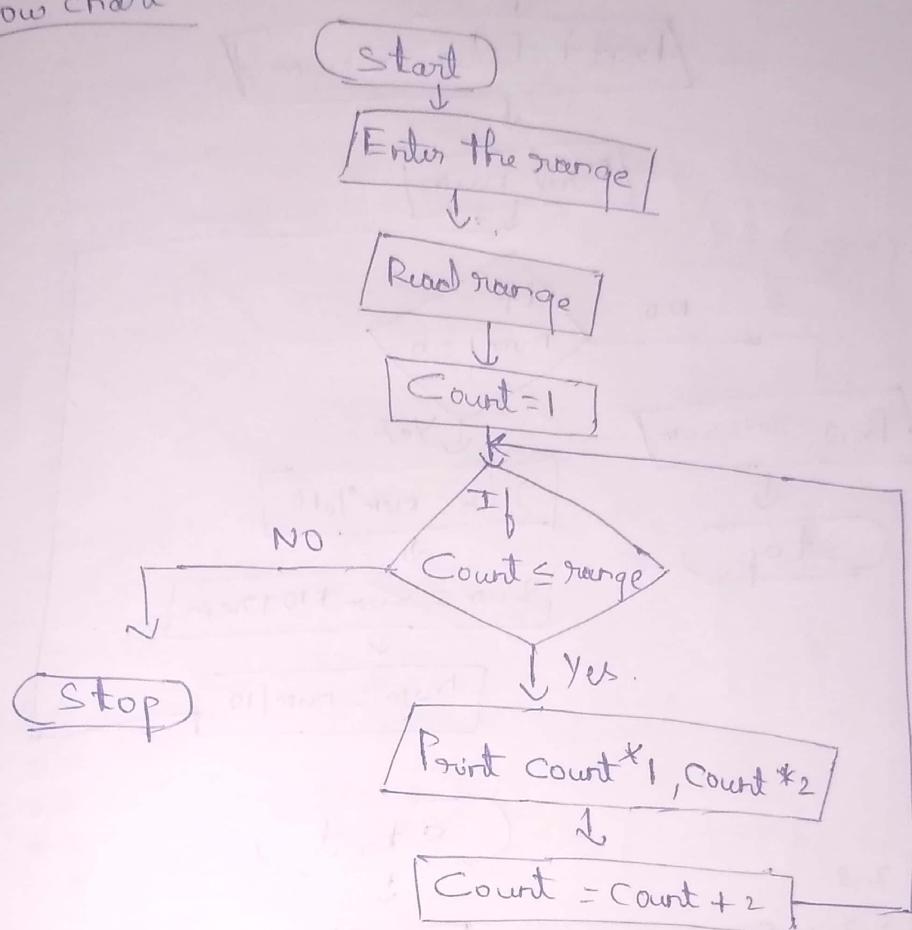


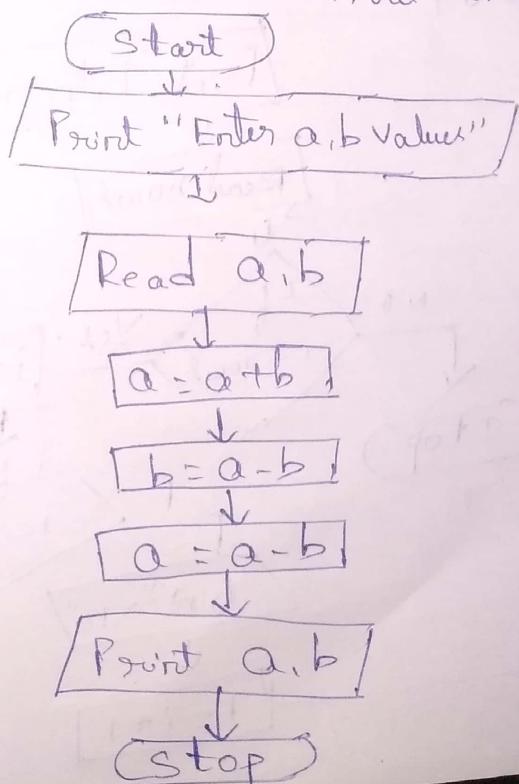
## Flow chart

① 1, 2, 3, 6, 5, 10, 7, 14, 9, 18

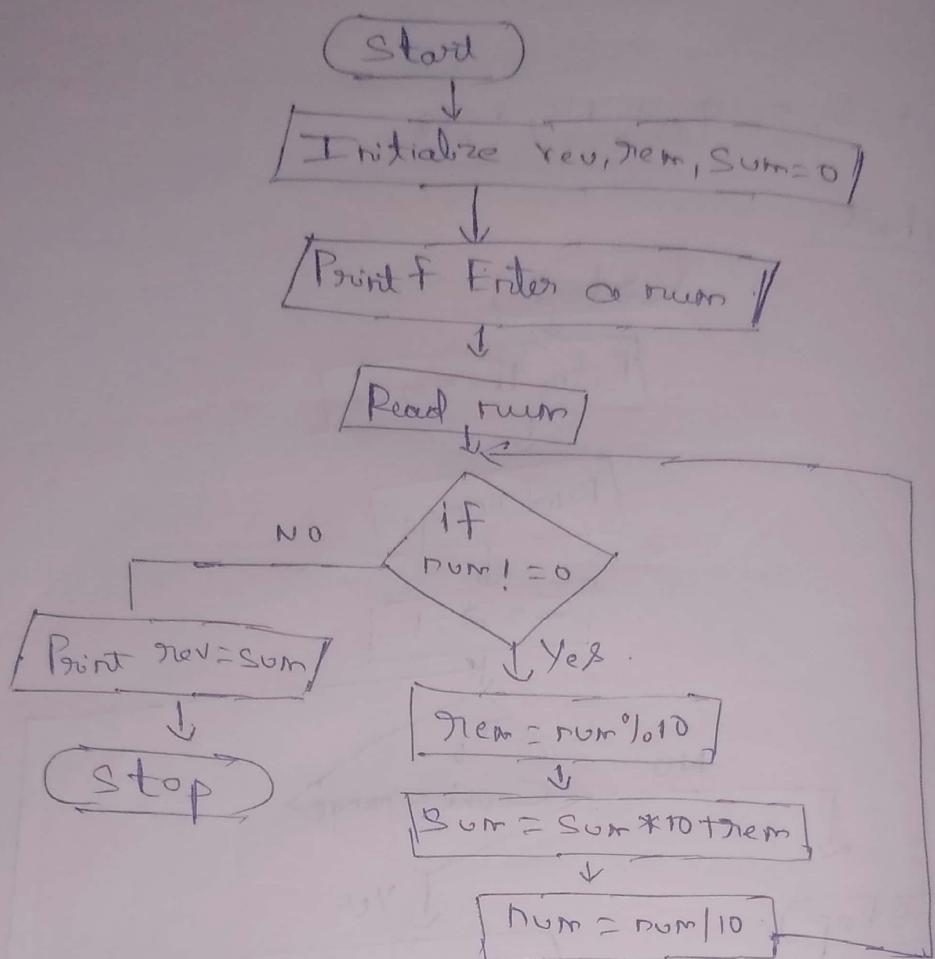
flow chart



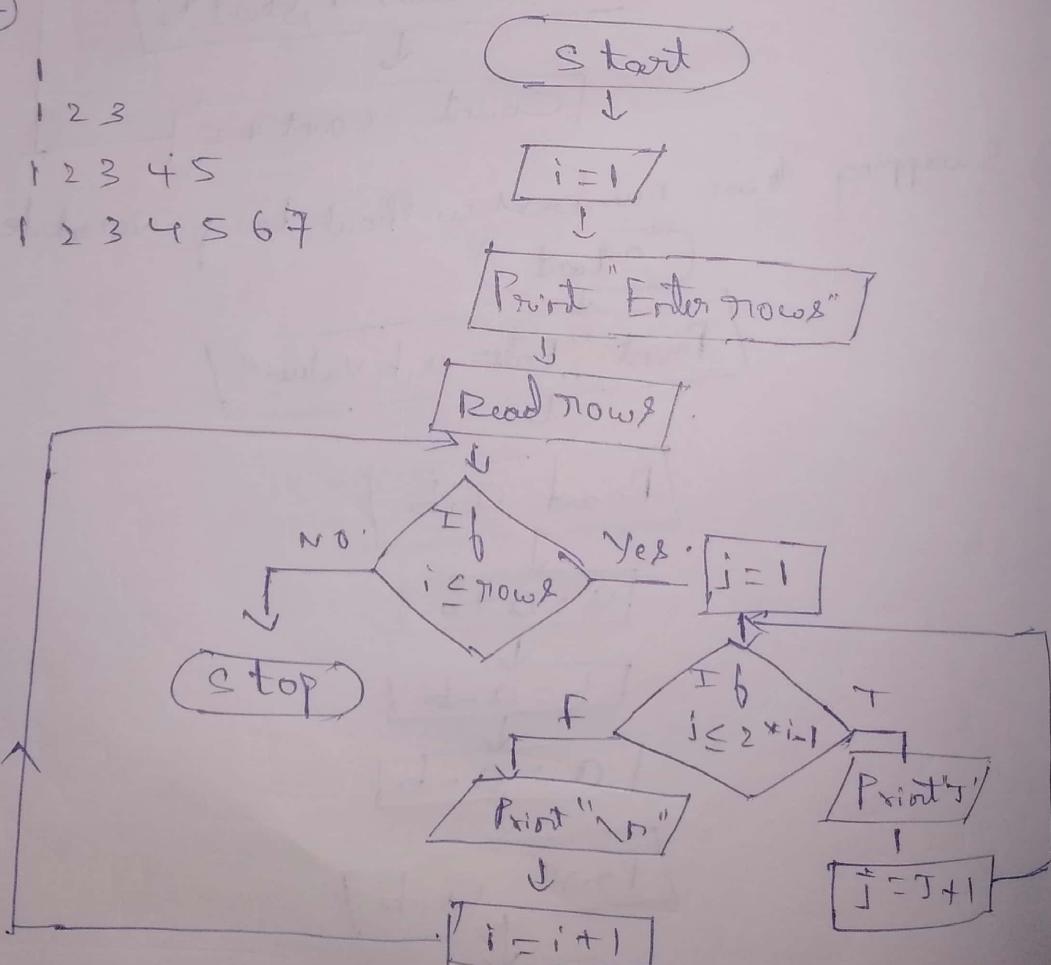
② Swapping two numbers without temp variable.



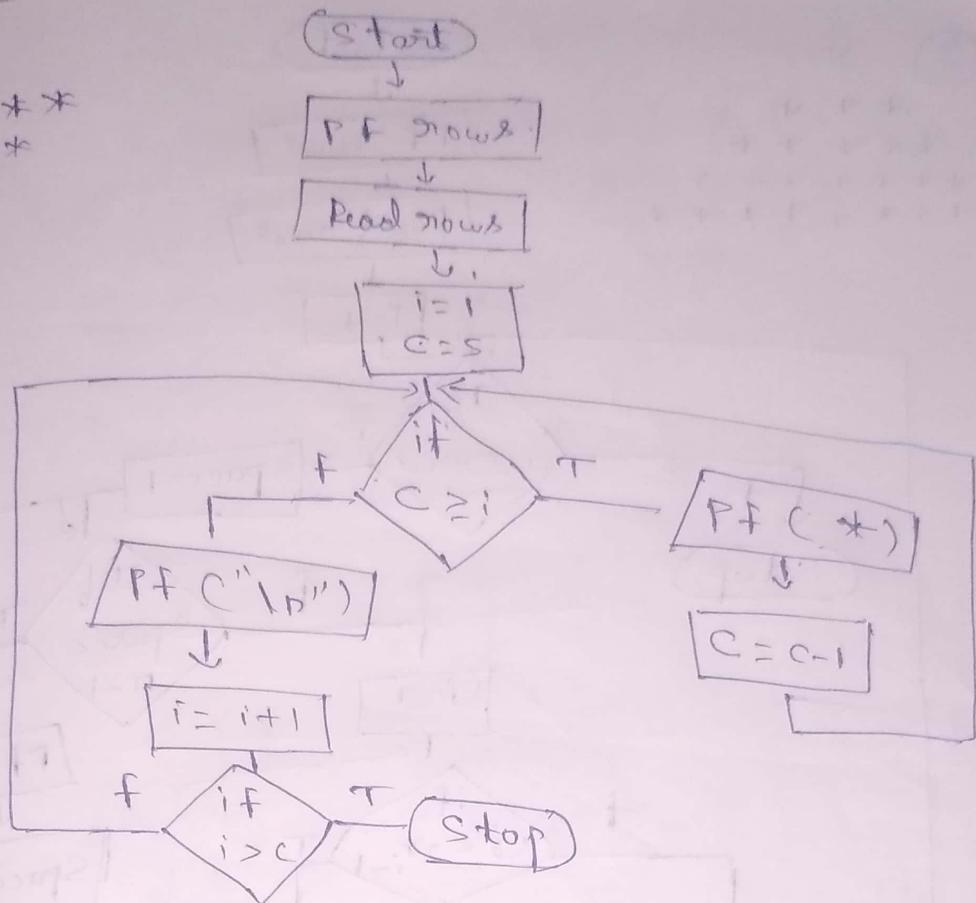
3) Reverse a number



(4)

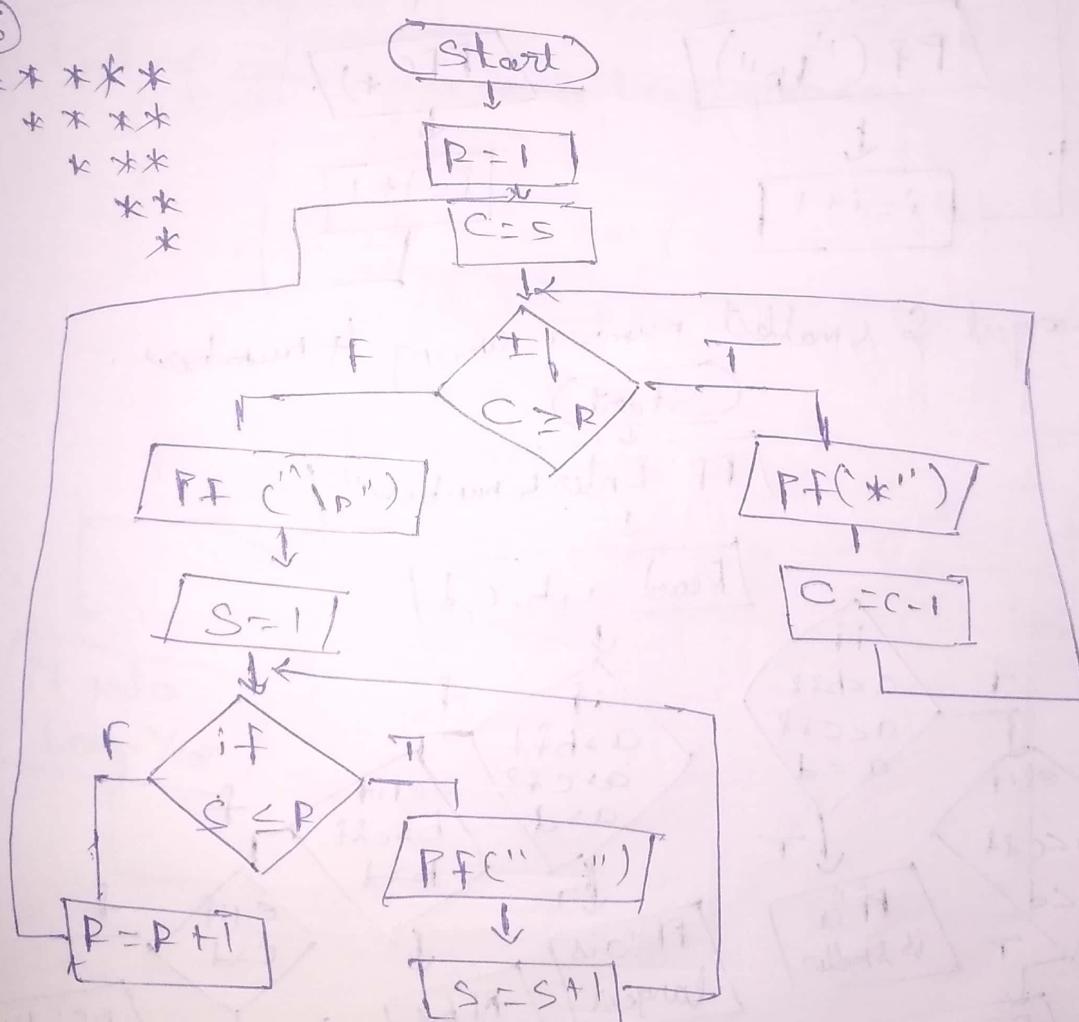


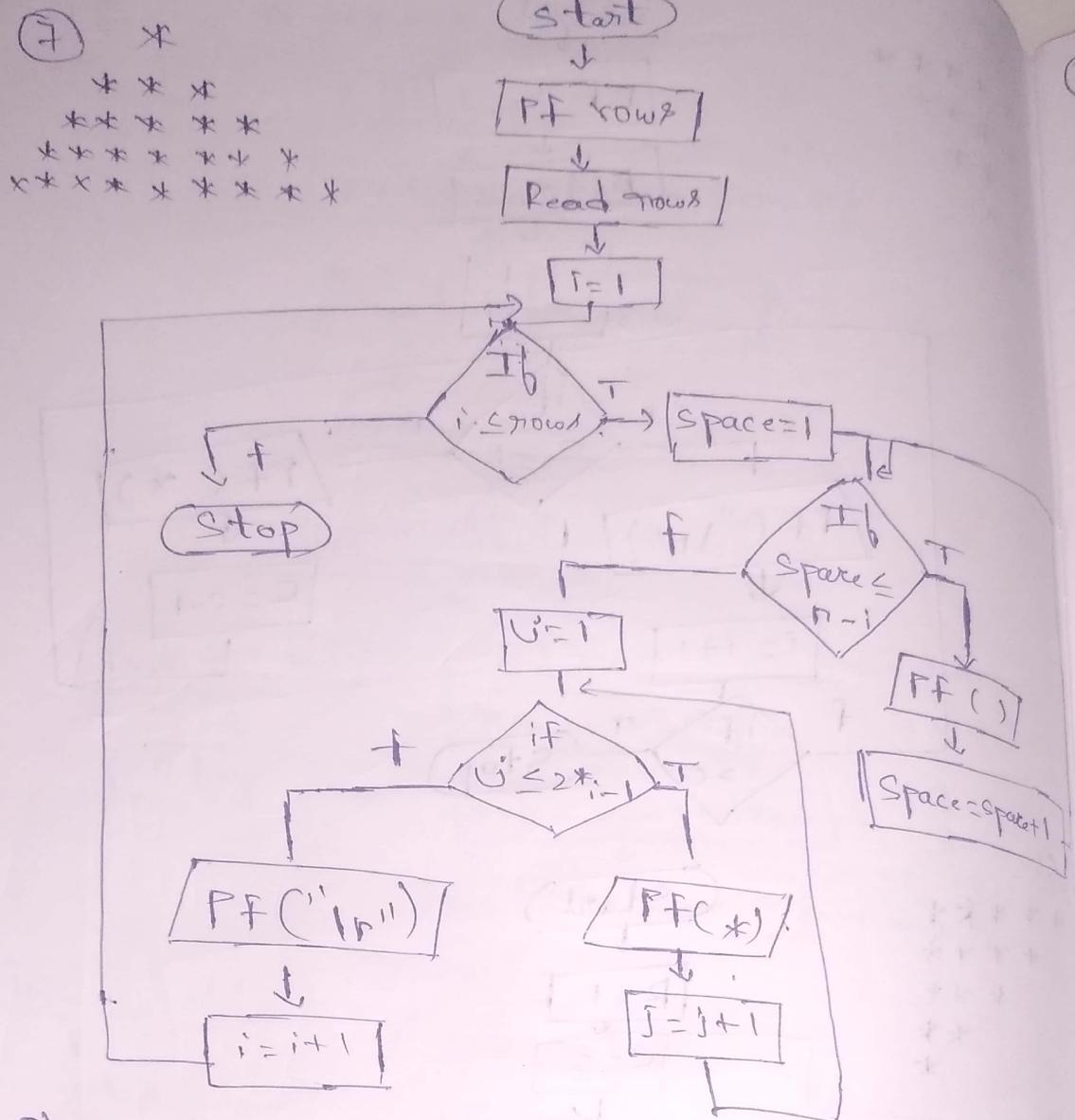
5  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*



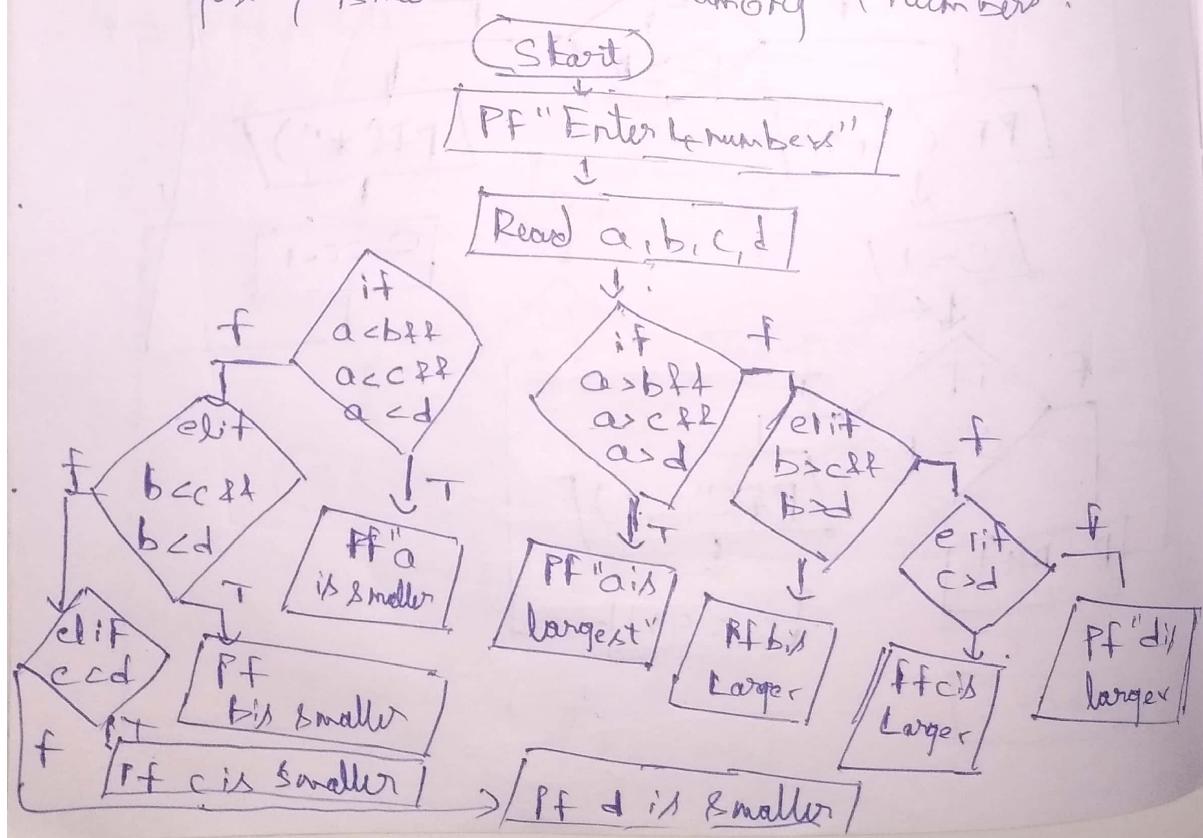
6

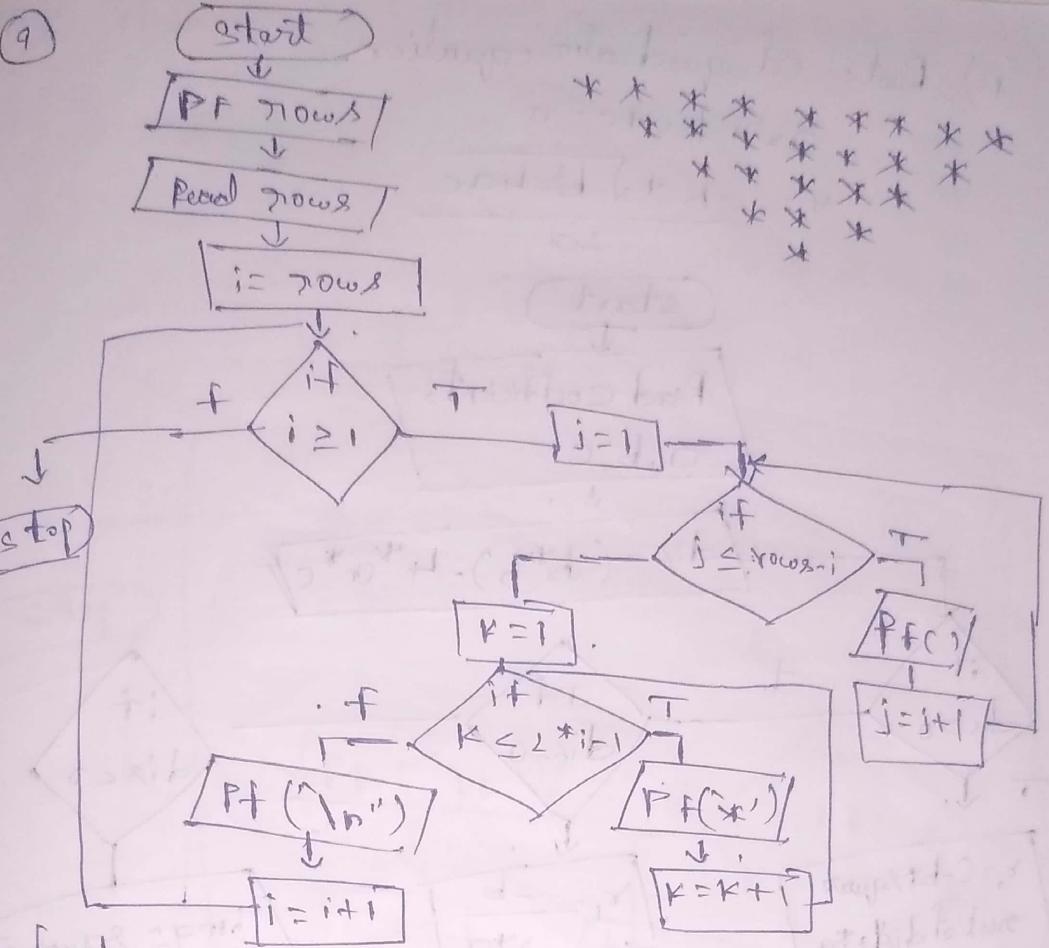
\* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*  
 \* \* \* \* \*



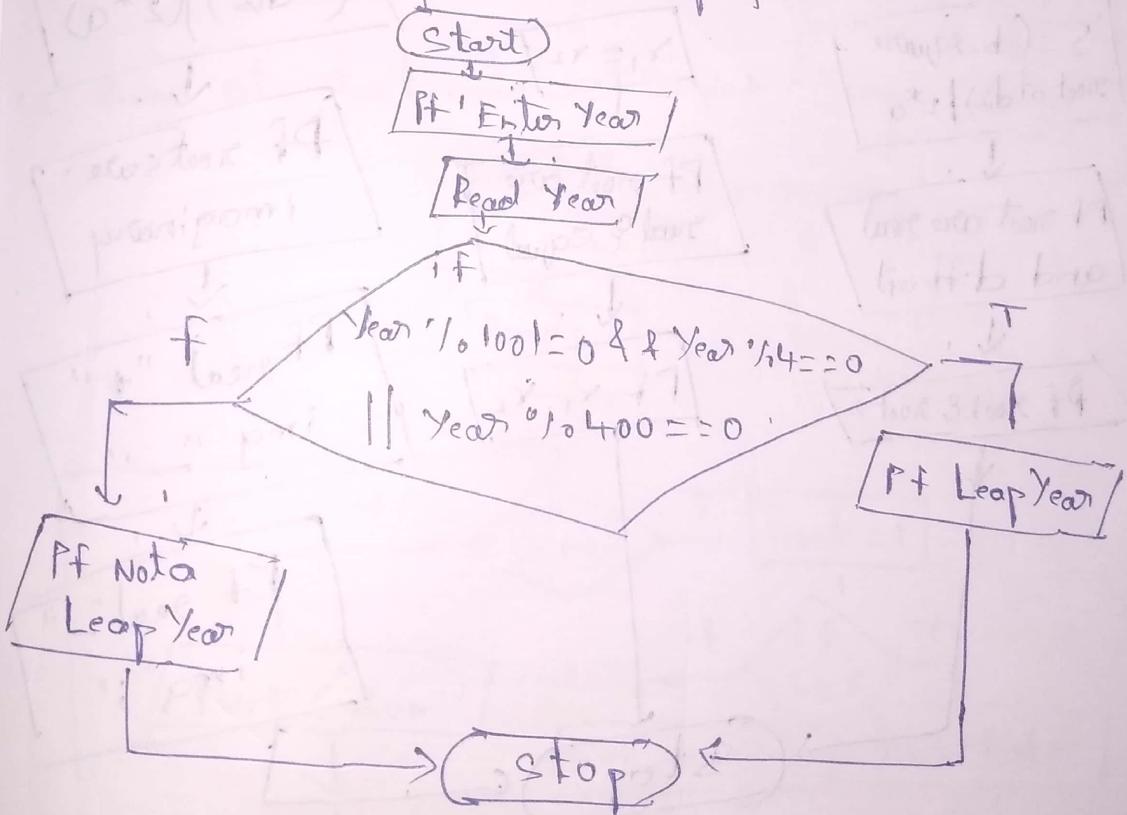


8) Largest & smallest number among 4 numbers.





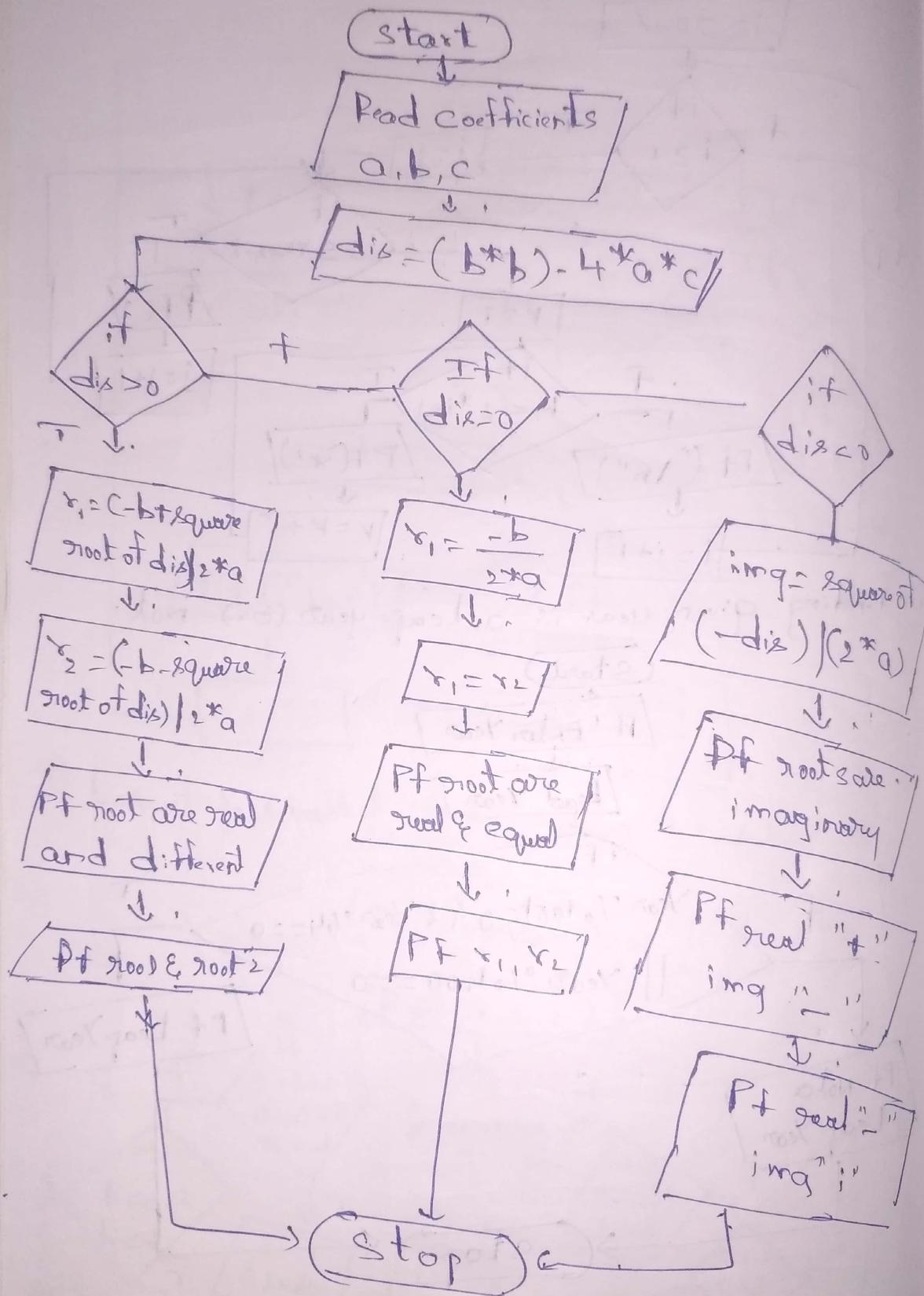
⑩ finding given year is a Leap year (or) not.



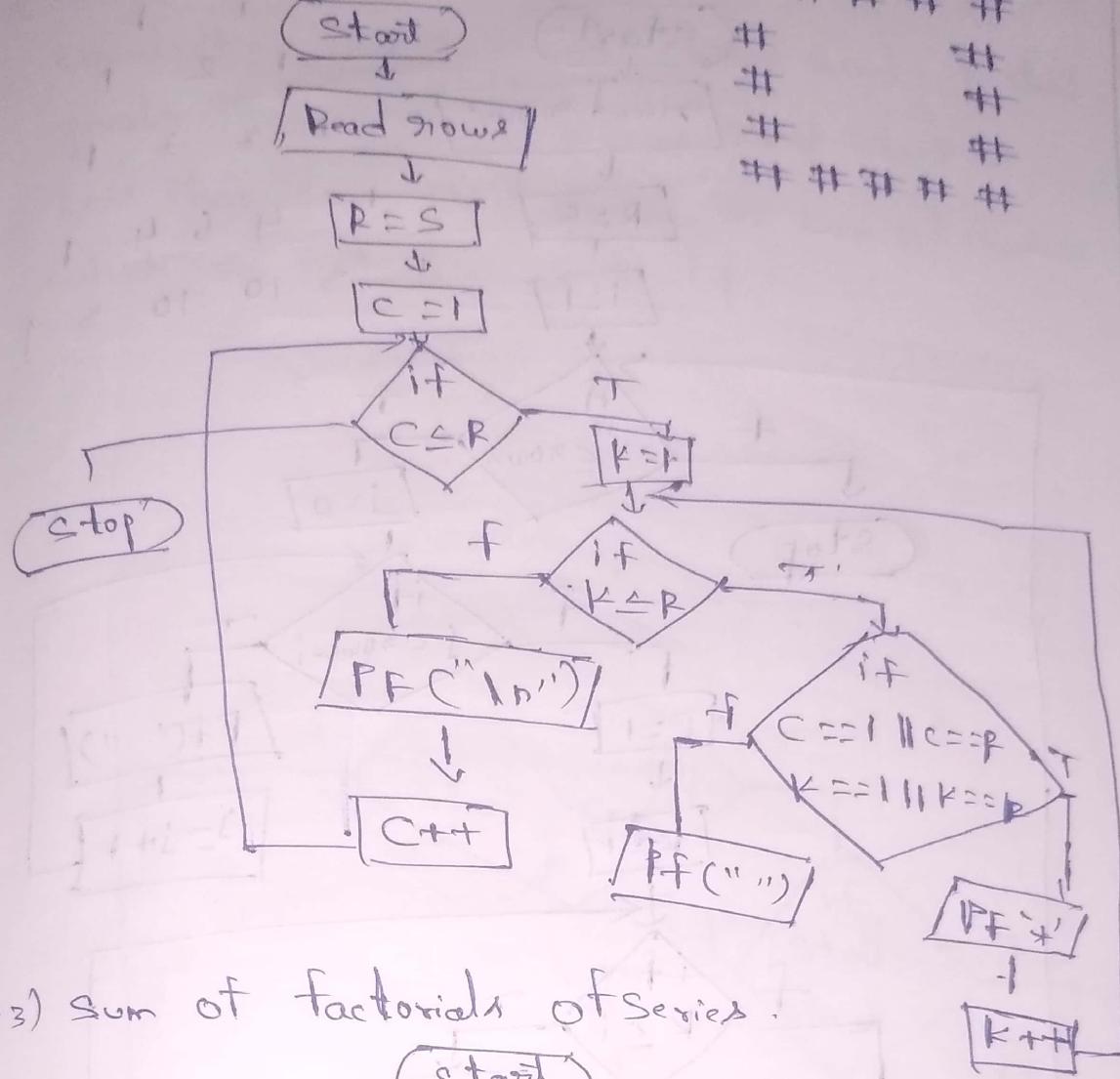
# 1) Roots of quadratic equation

$$ax^2 + bx + c = 0$$

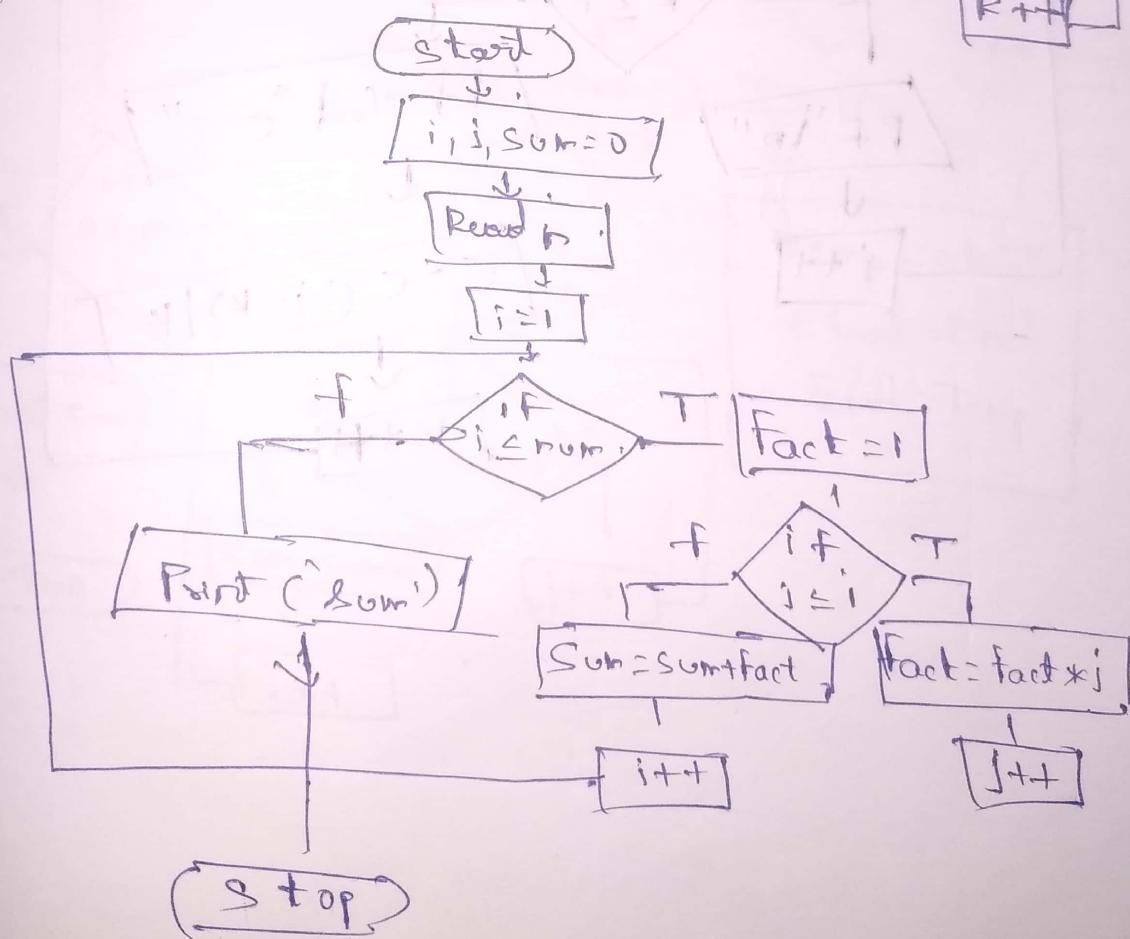
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



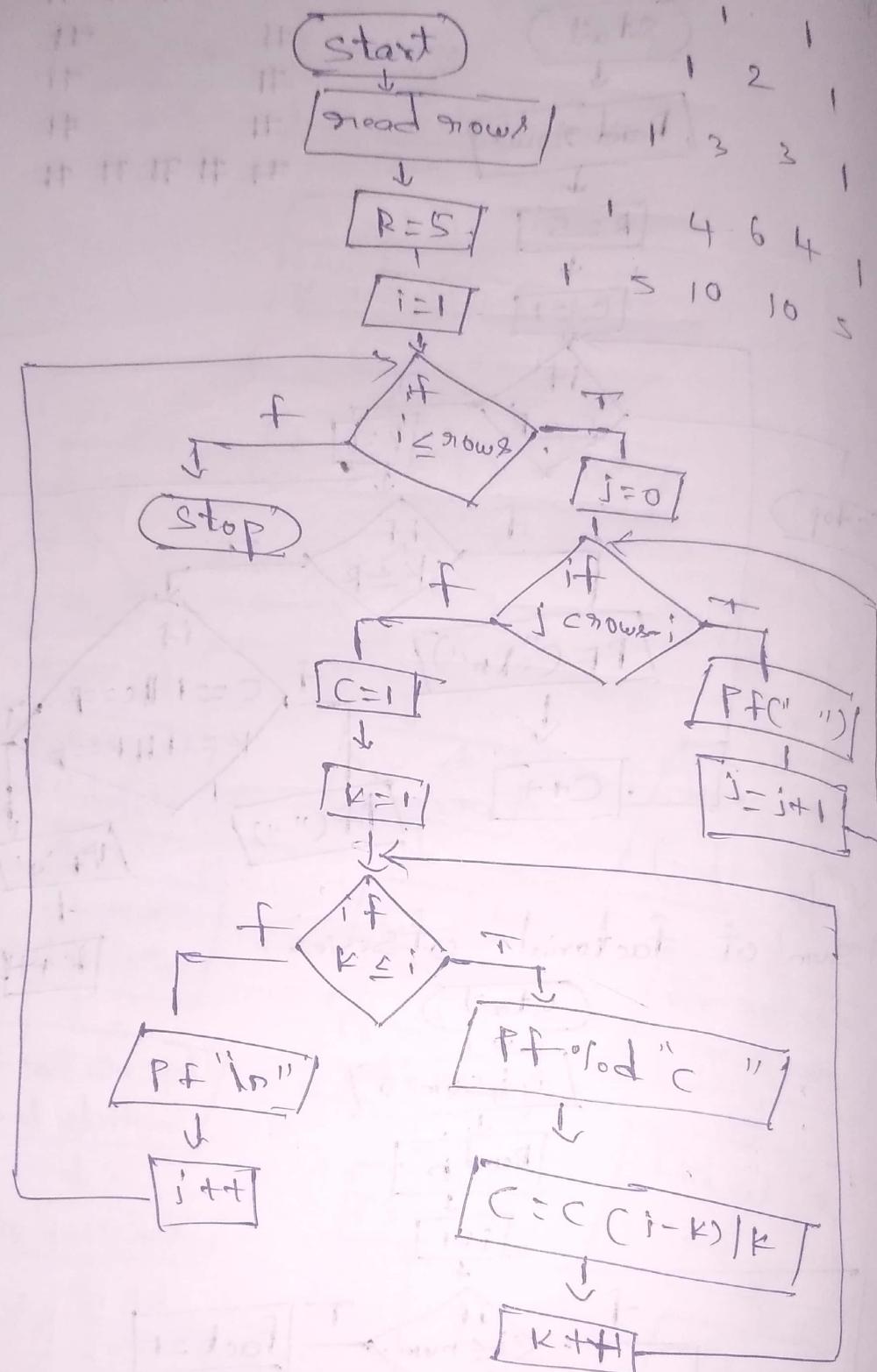
12) Hollow square



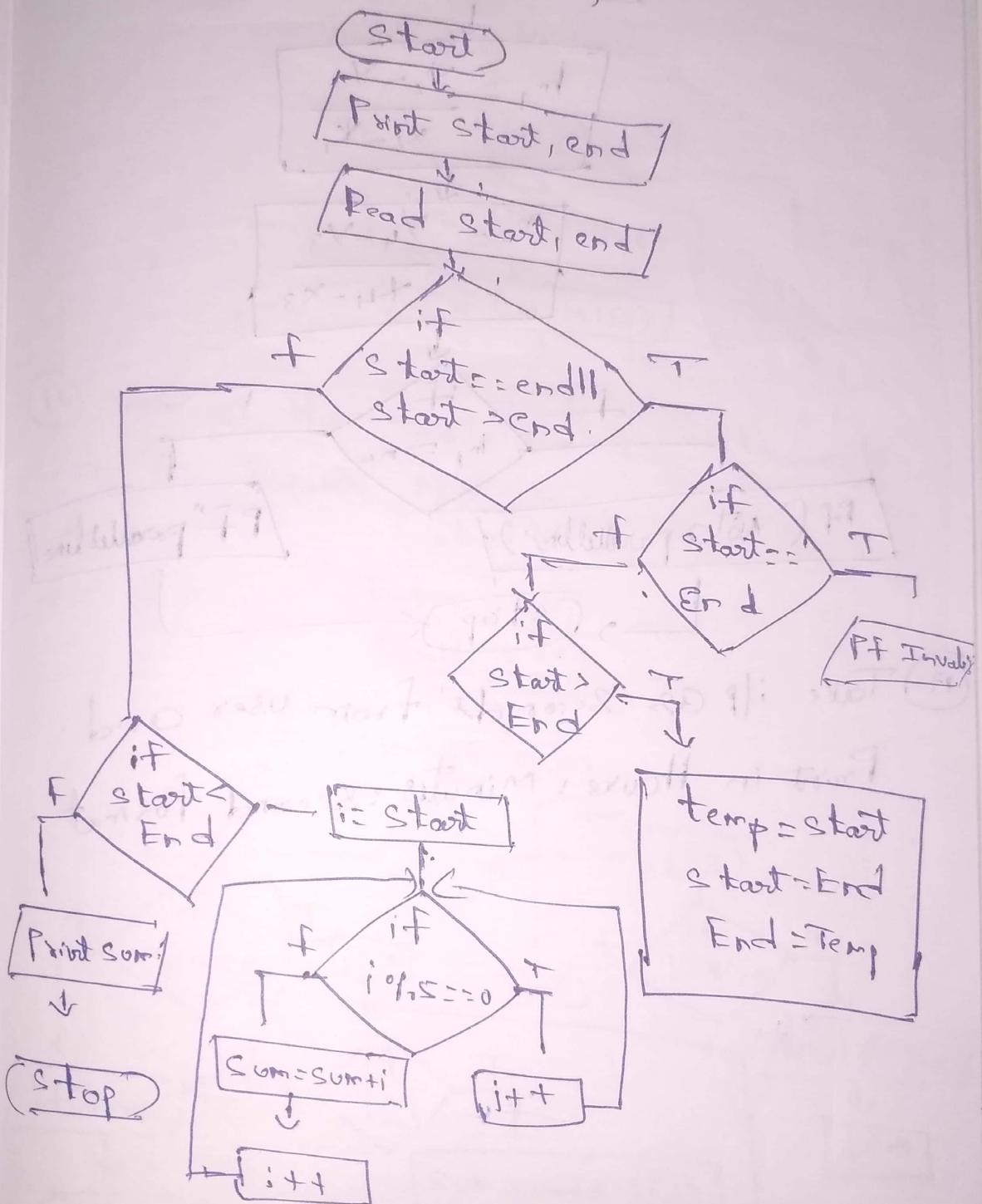
13) Sum of factorials of series.



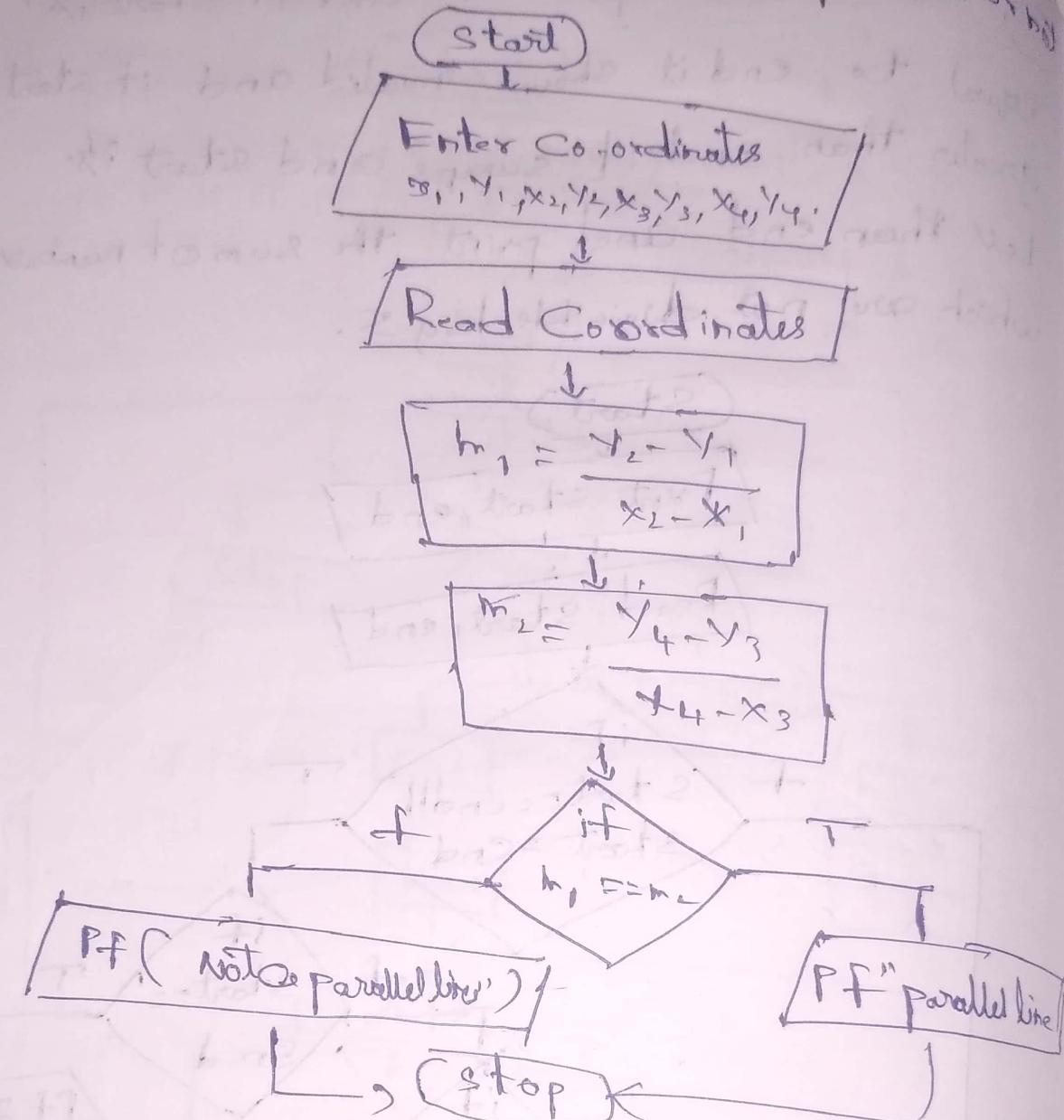
⑭ Pascal Triangle



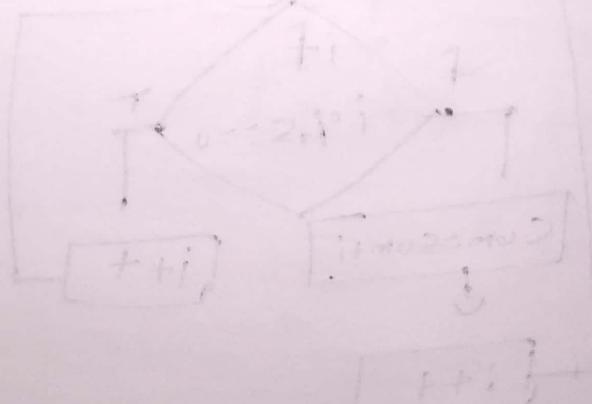
15 Take two ranges from user if start is equal to end it shows invalid and if start greater than end it swaps and start is less than end and print the sum of numbers which are not divisible by 5.

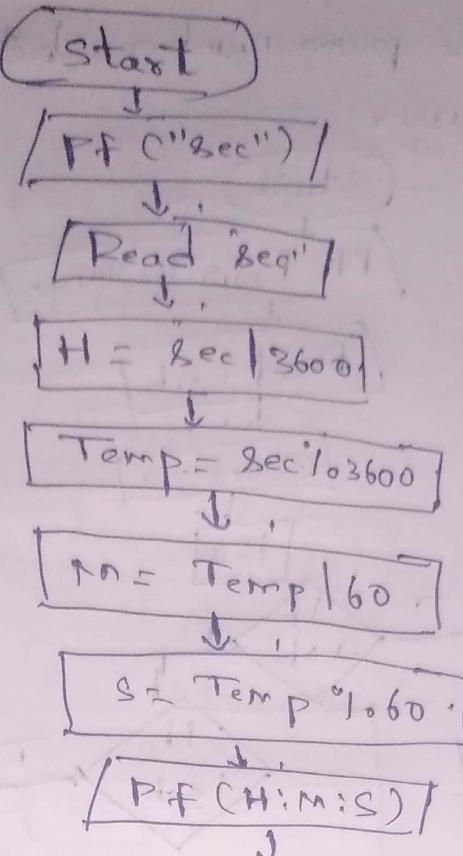


⑯ Check whether two Lines are parallel or not

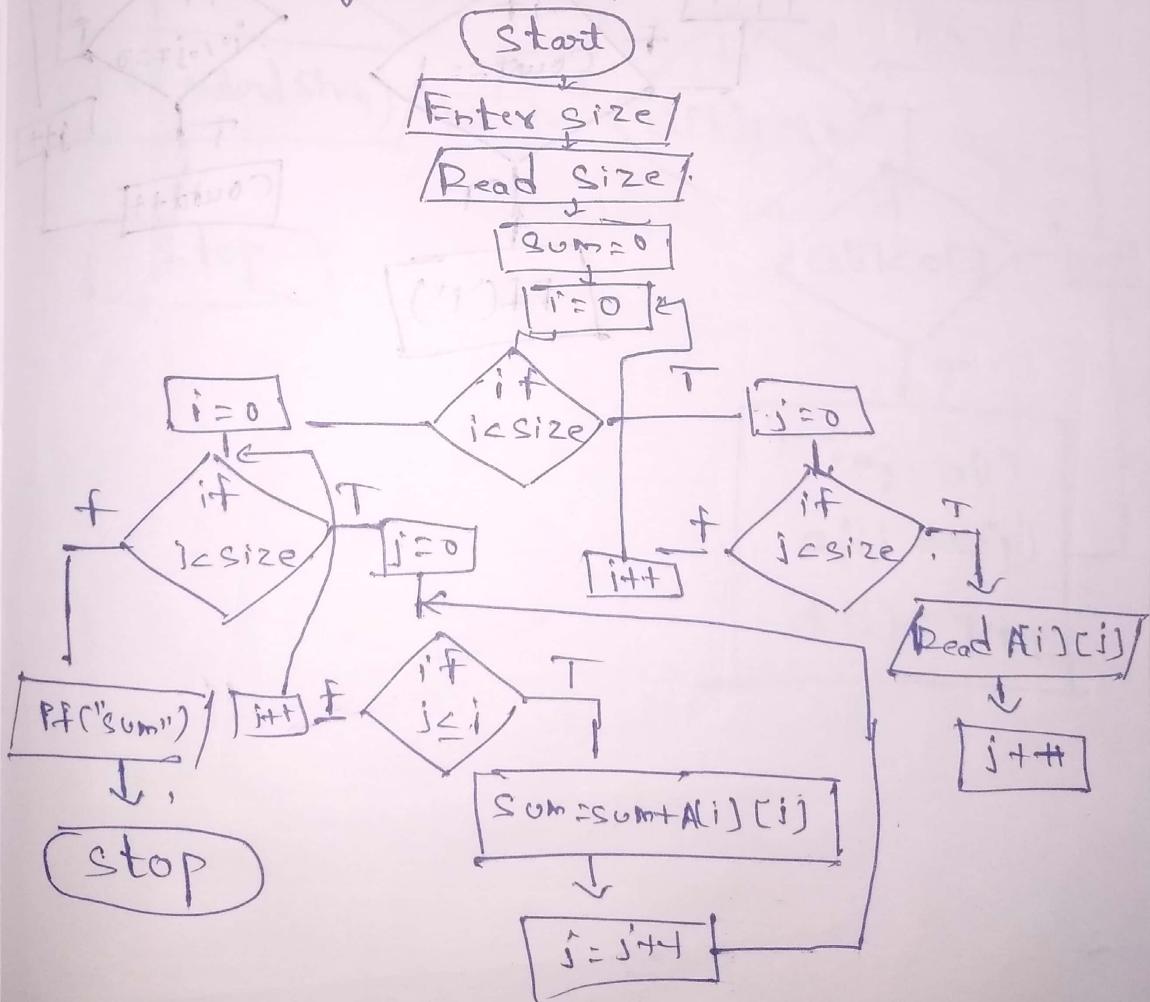


⑰ Take : // As : Second from user and  
Print in Hours : Minutes : second format.

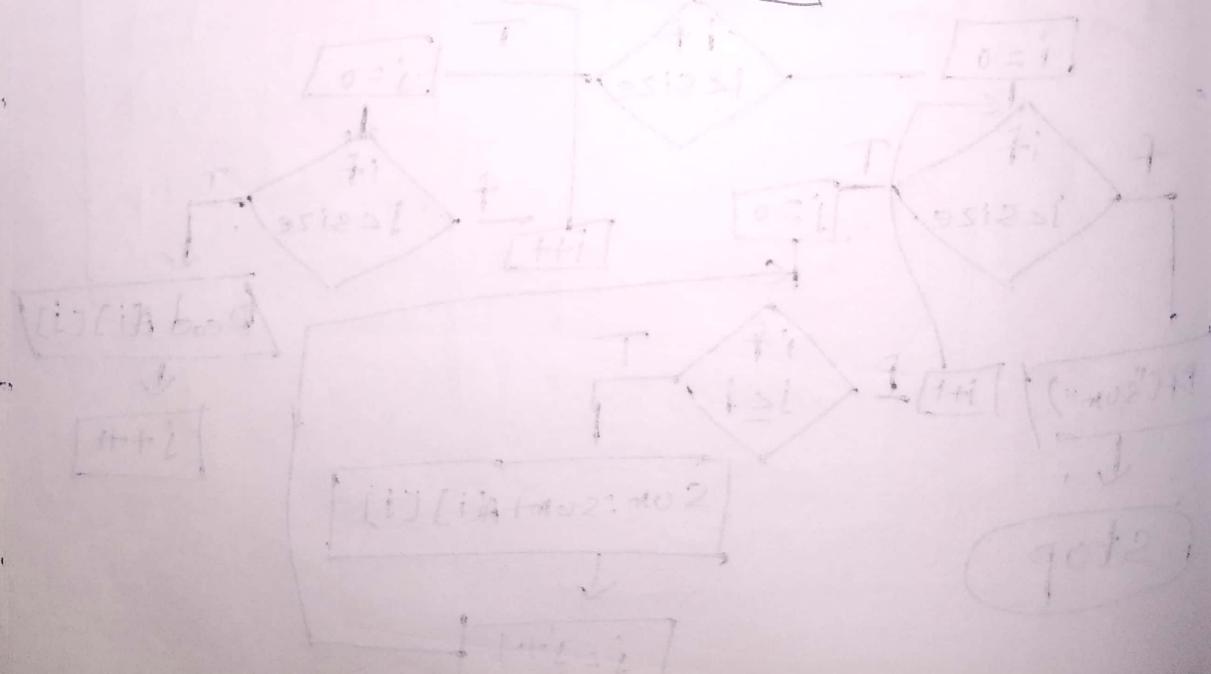
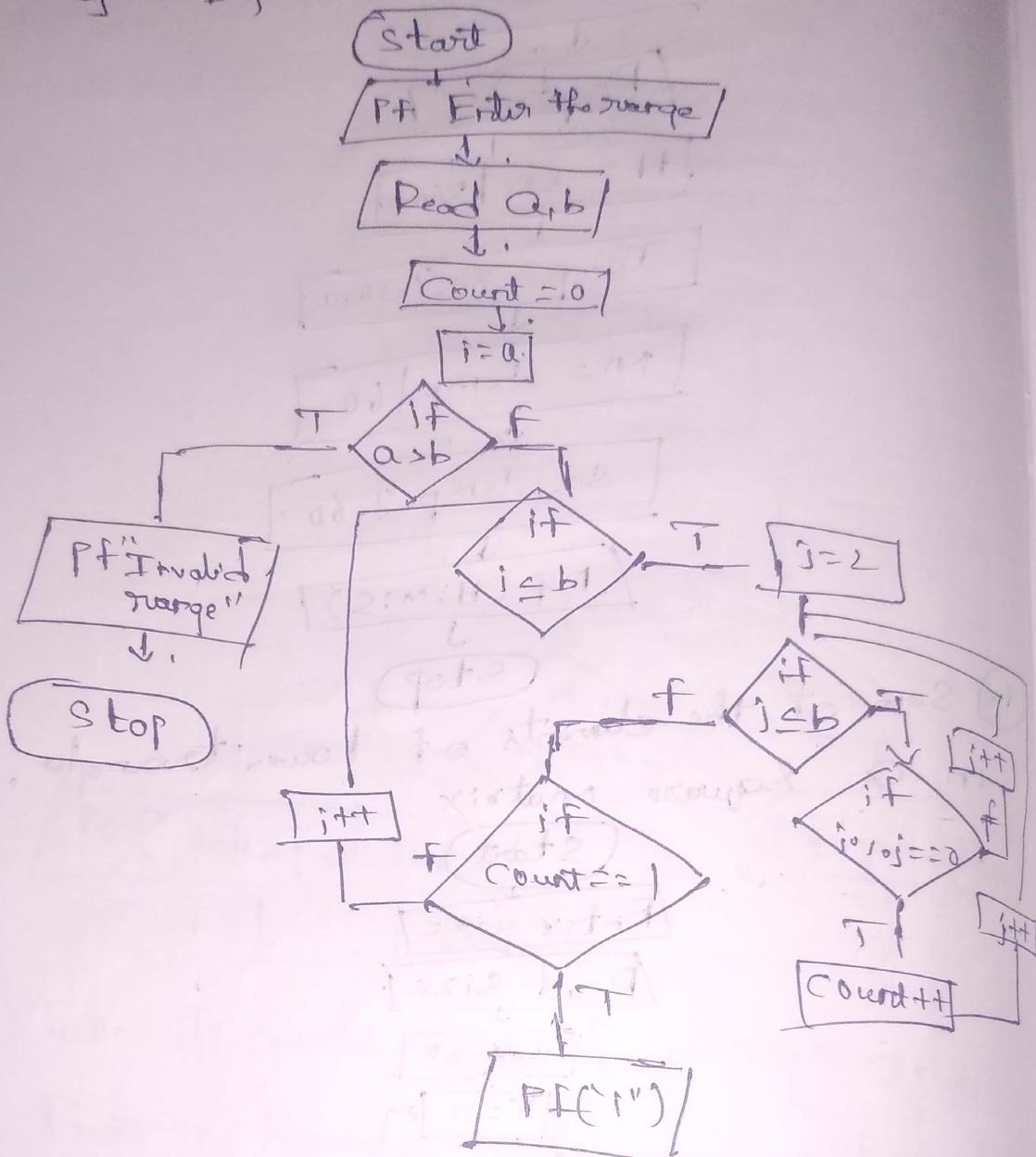




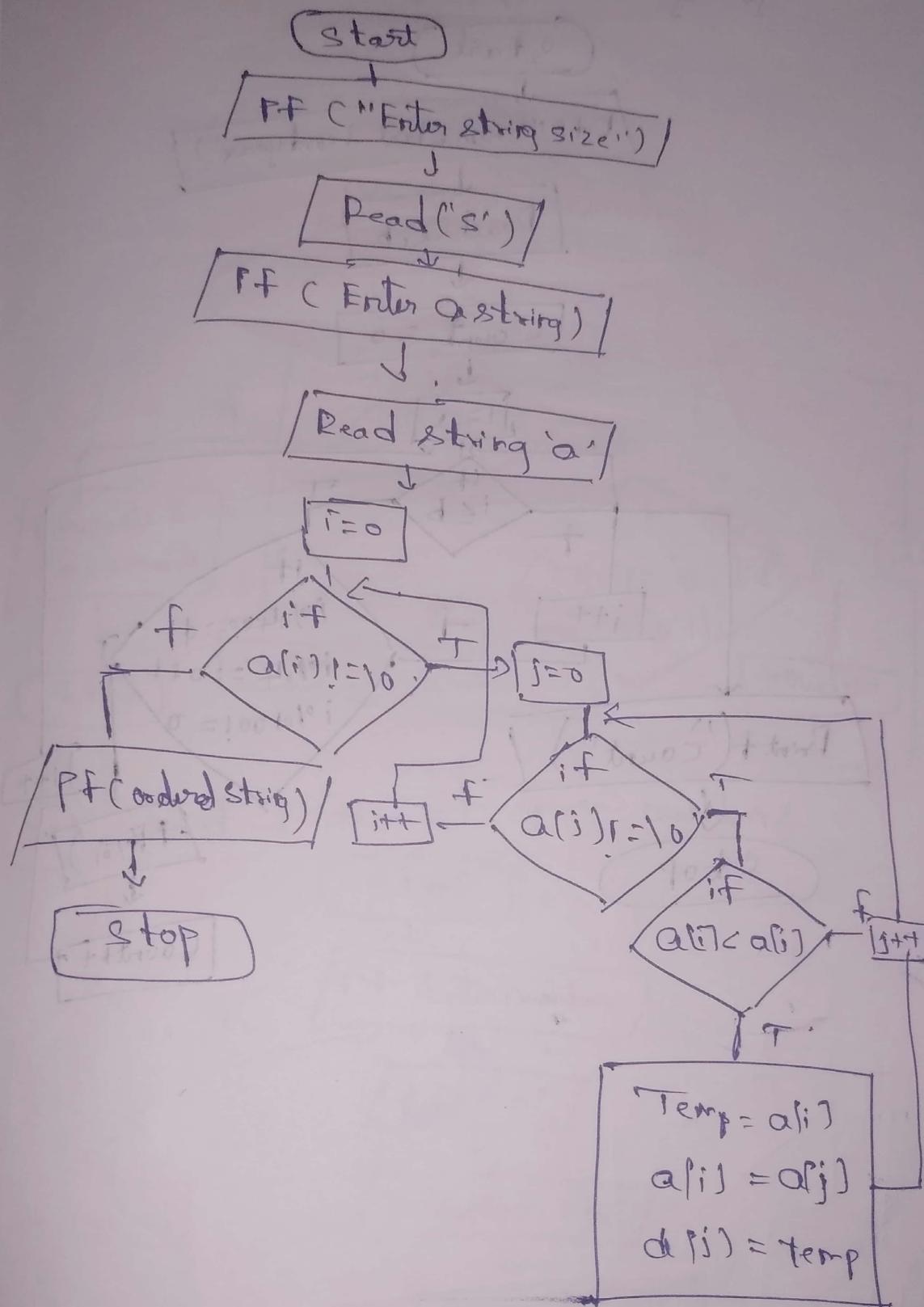
Q18 Sum of the elements of Lower triangle in a square matrix.



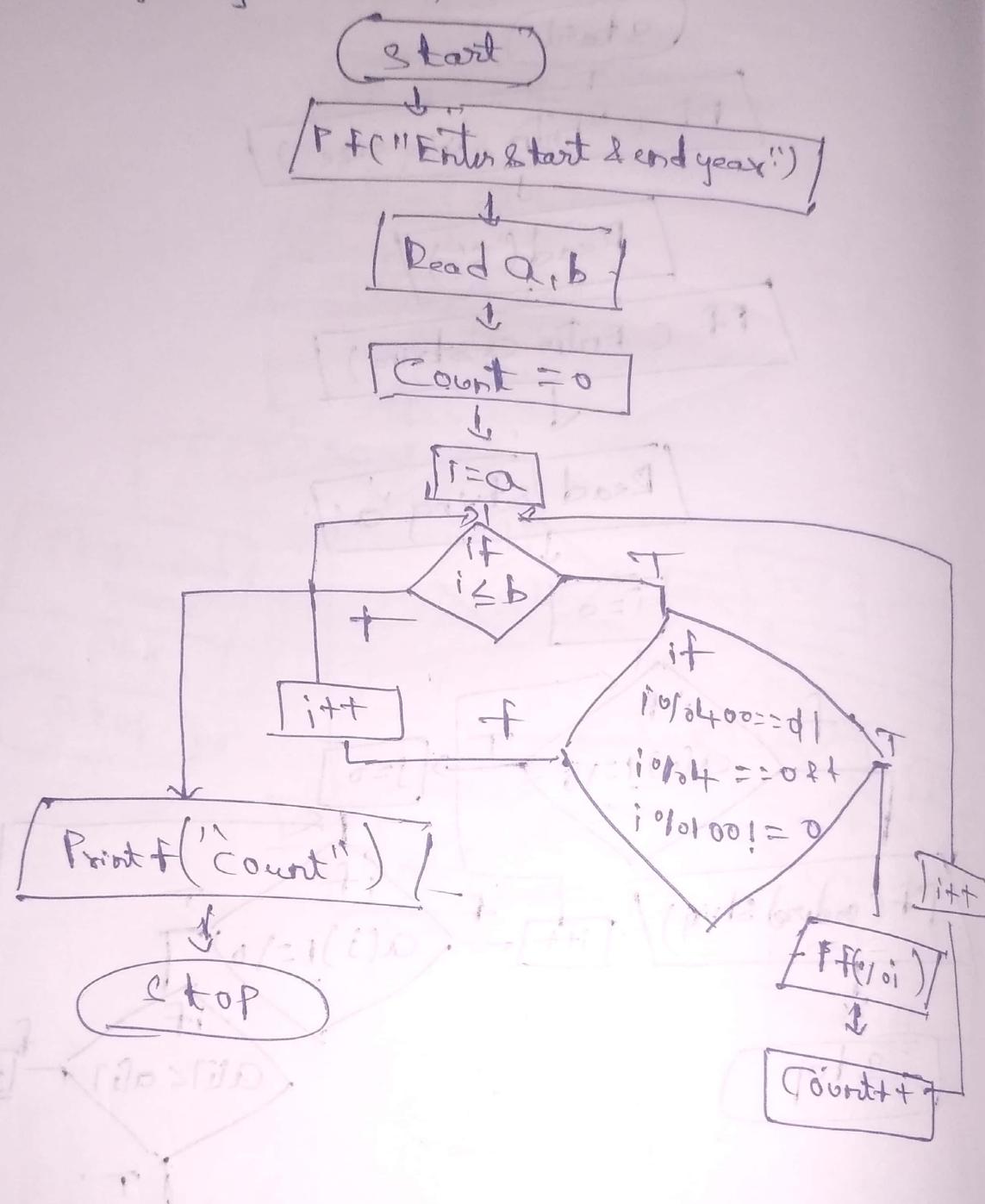
⑯ find the prime numbers between two numbers given by user.



(20) Take a string from the user and arrange the characters in alphabetical order.



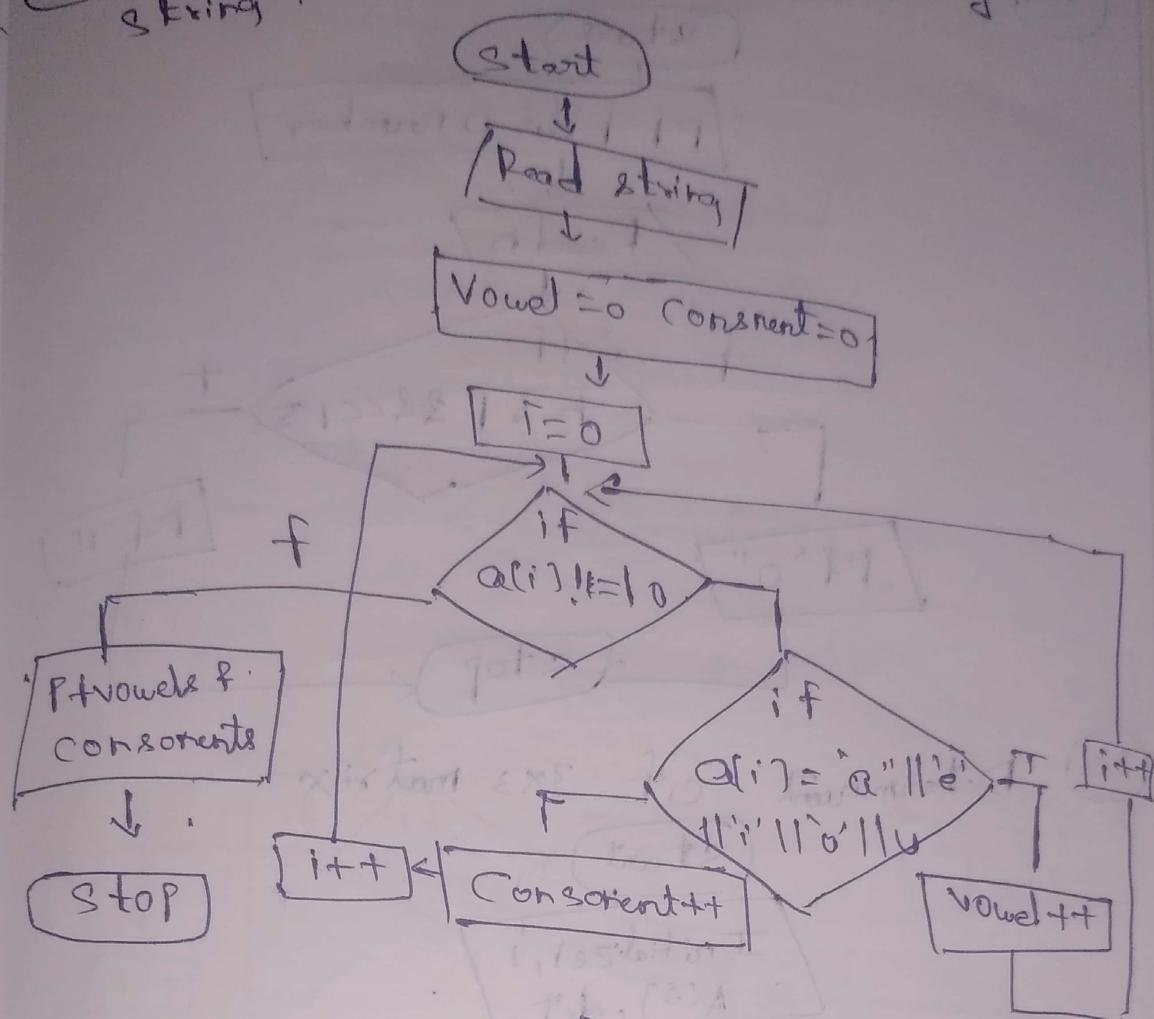
21) find the leap year and count between the range given by the user.



l10 = 1990  
l1p = l10  
l1r = l1p

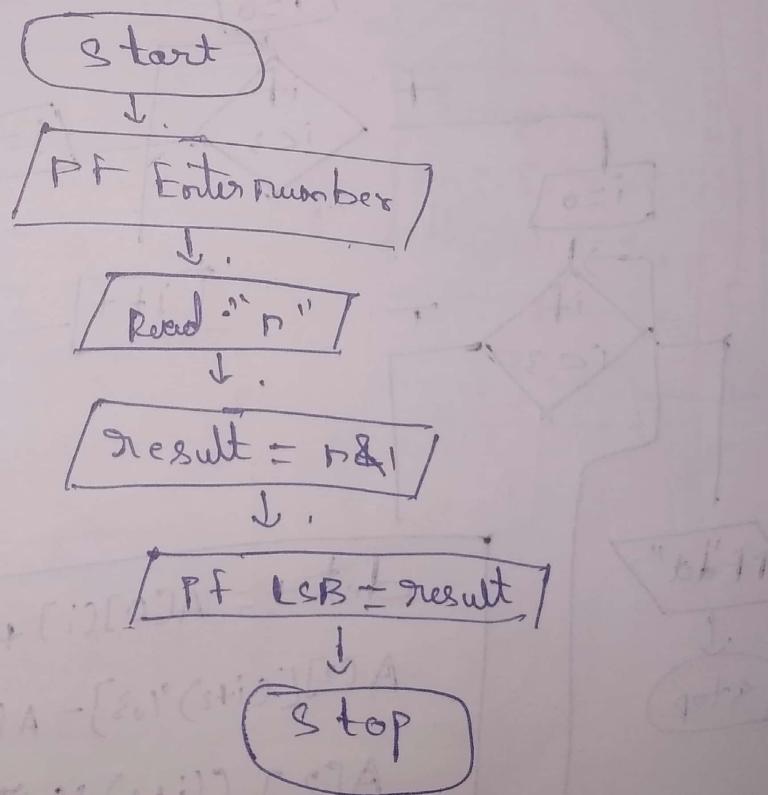
22

No. of vowels & consonants in a given string.

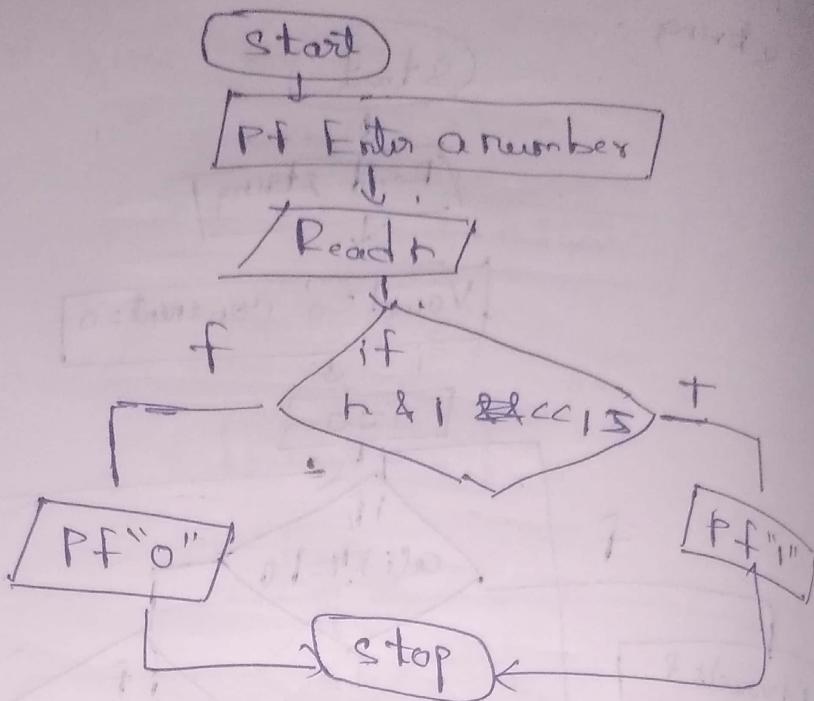


23

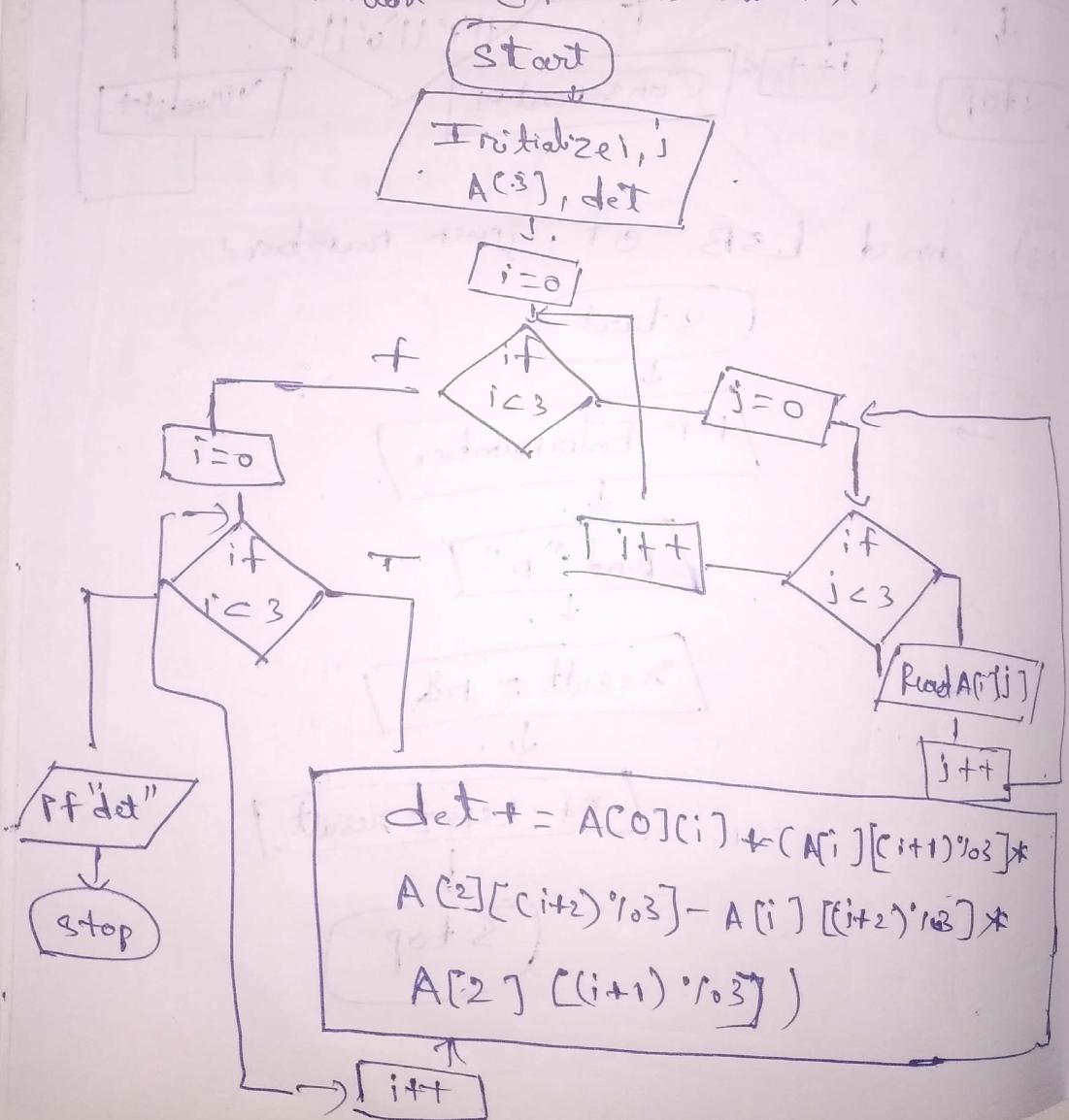
Find LSB of given number.



24 Find MSB of a given number.

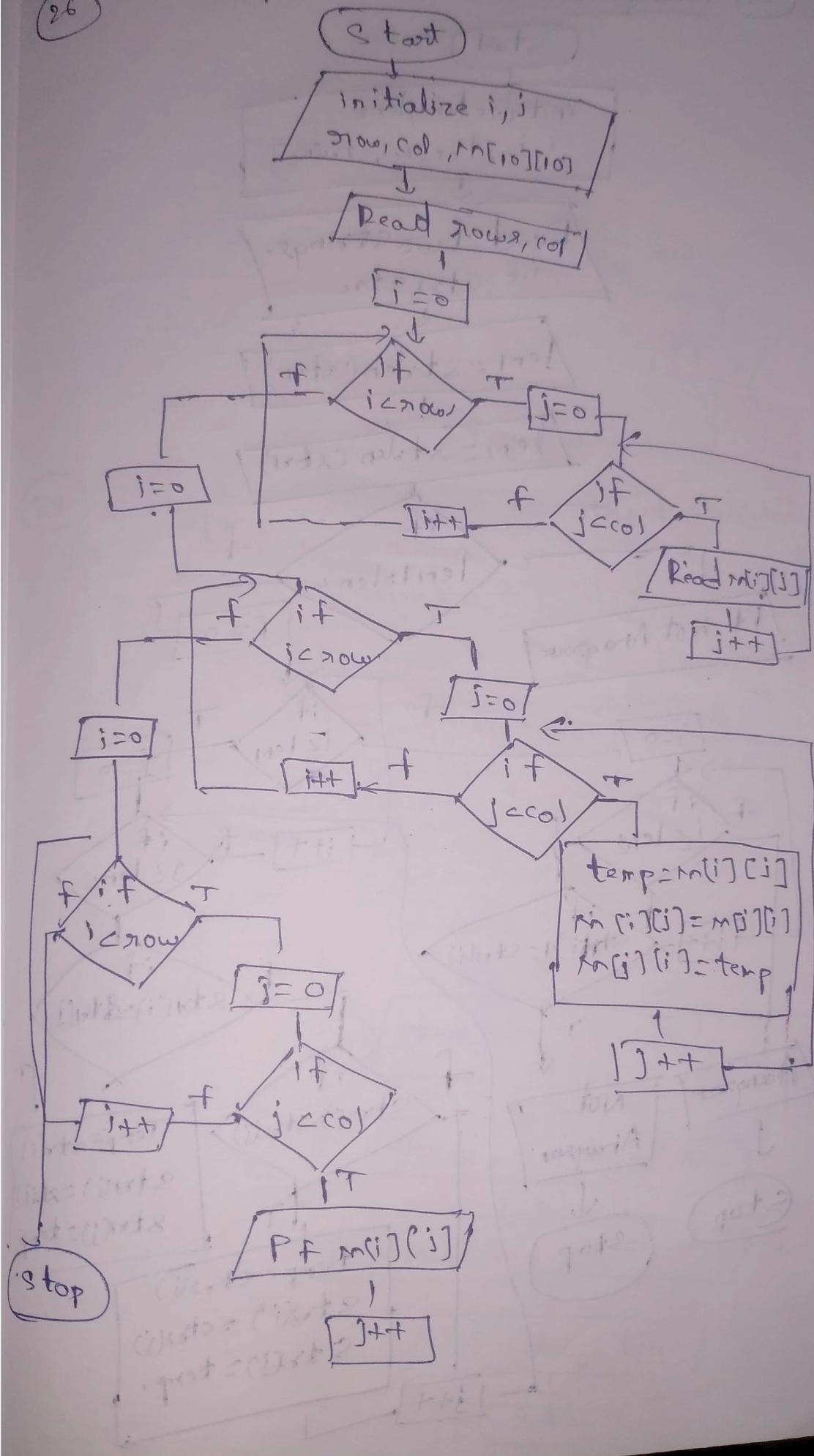


25 Determinant of  $3 \times 3$  matrix

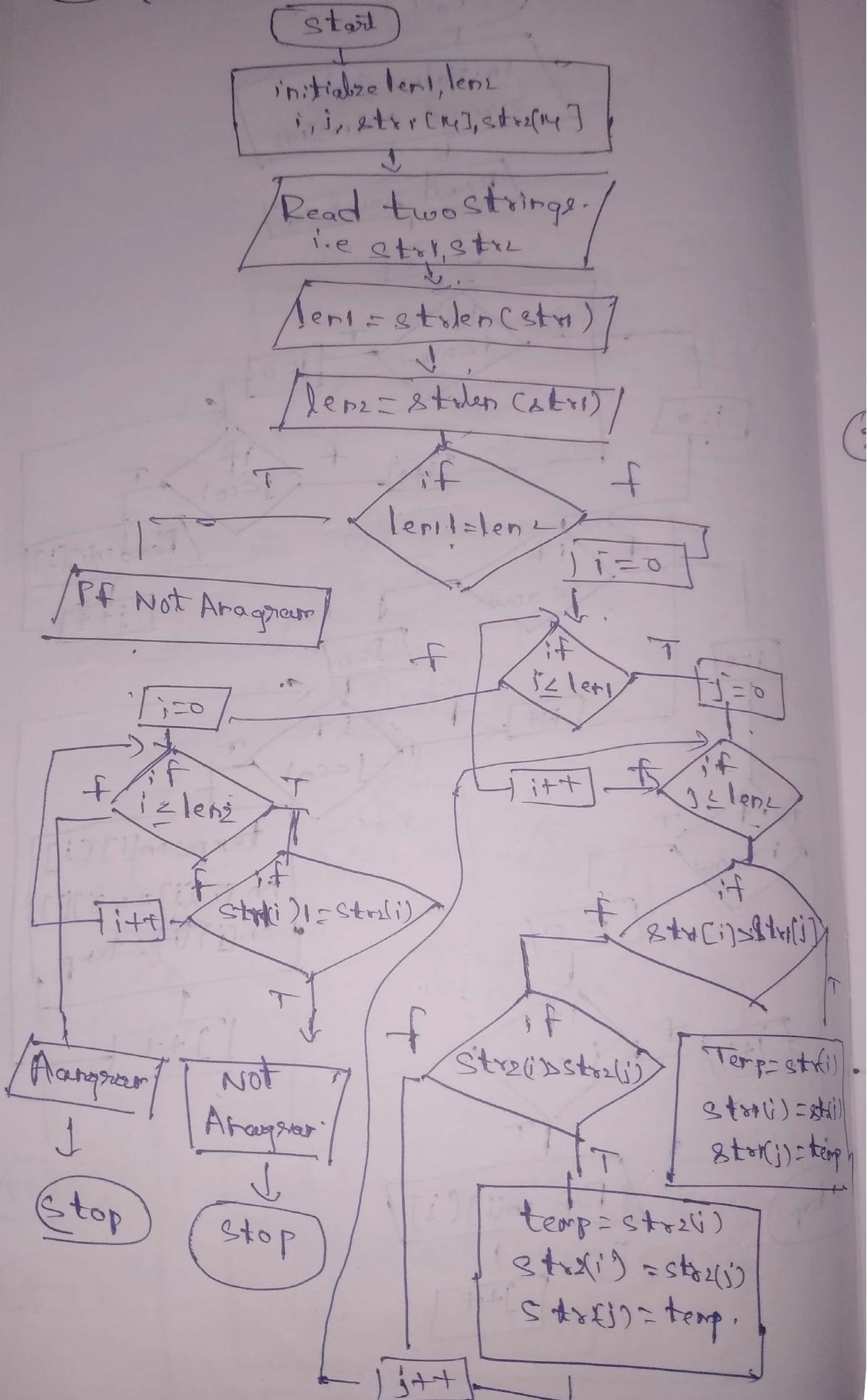


## Transpose of a Matrix

(26)

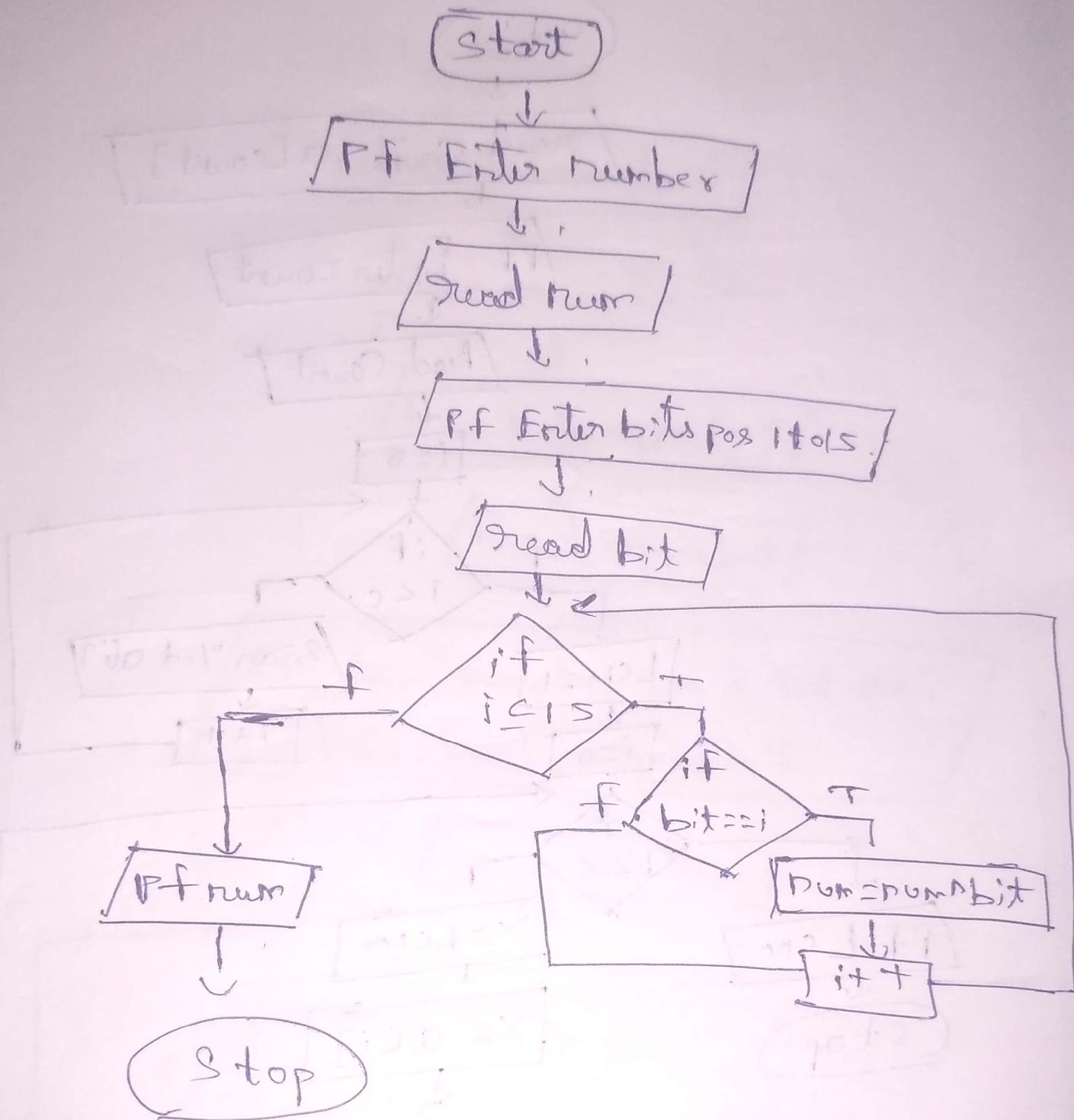


(27) Anagram

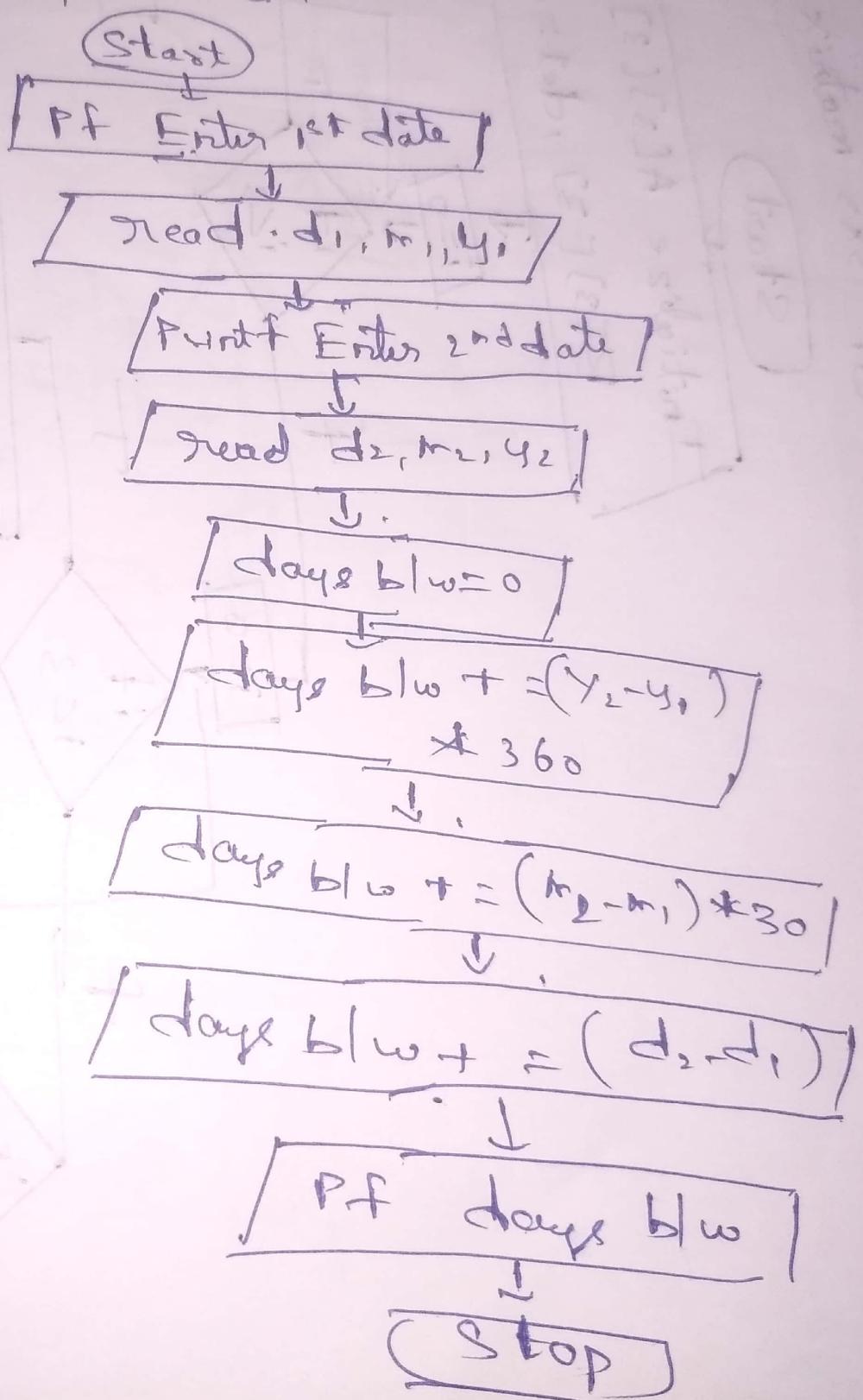


Q1 28

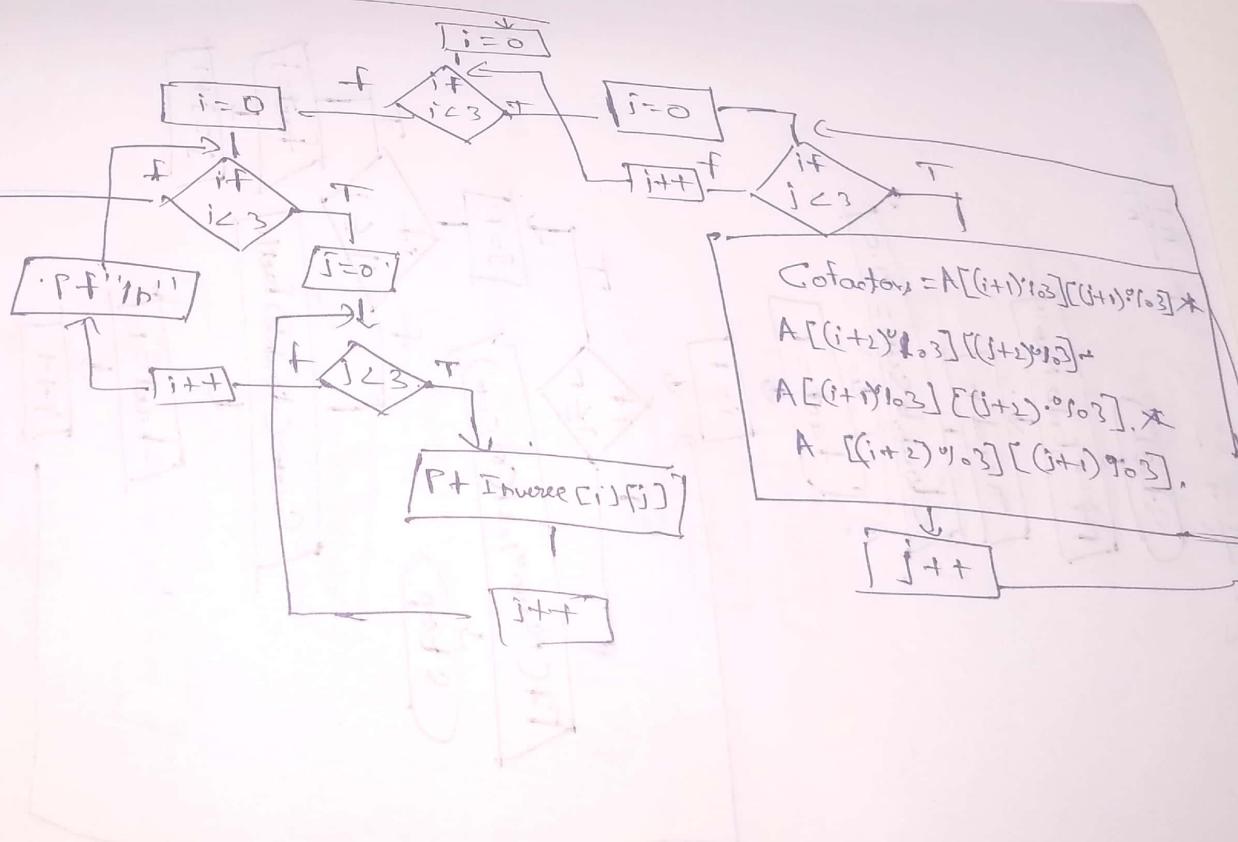
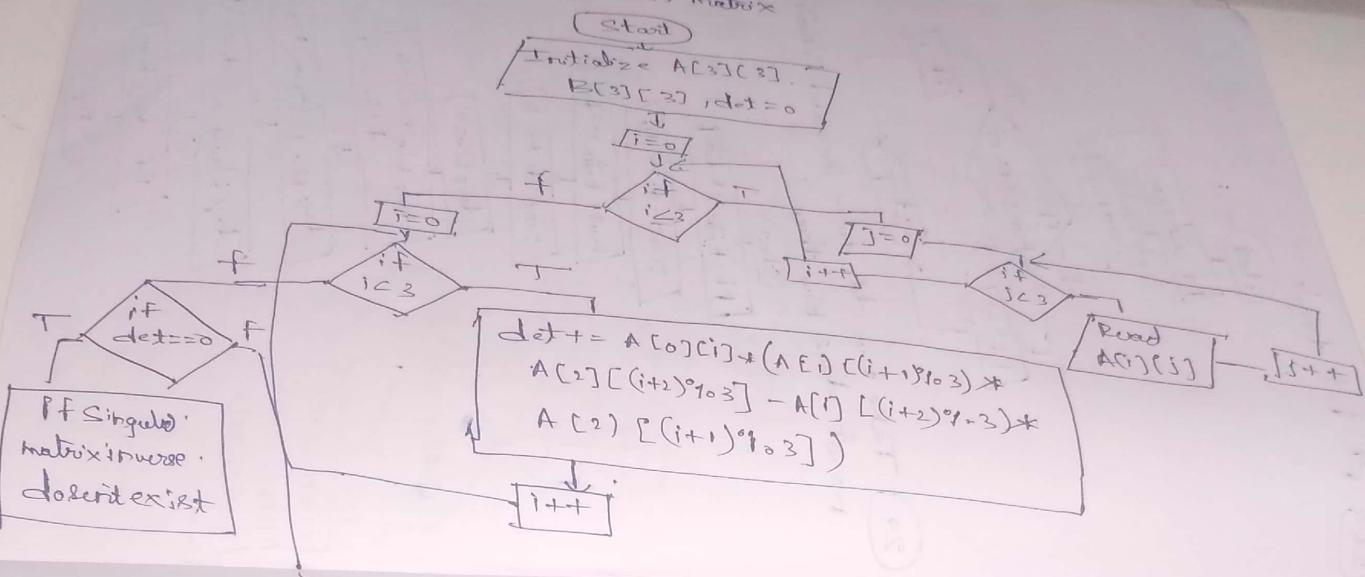
n<sup>th</sup> bit toggle



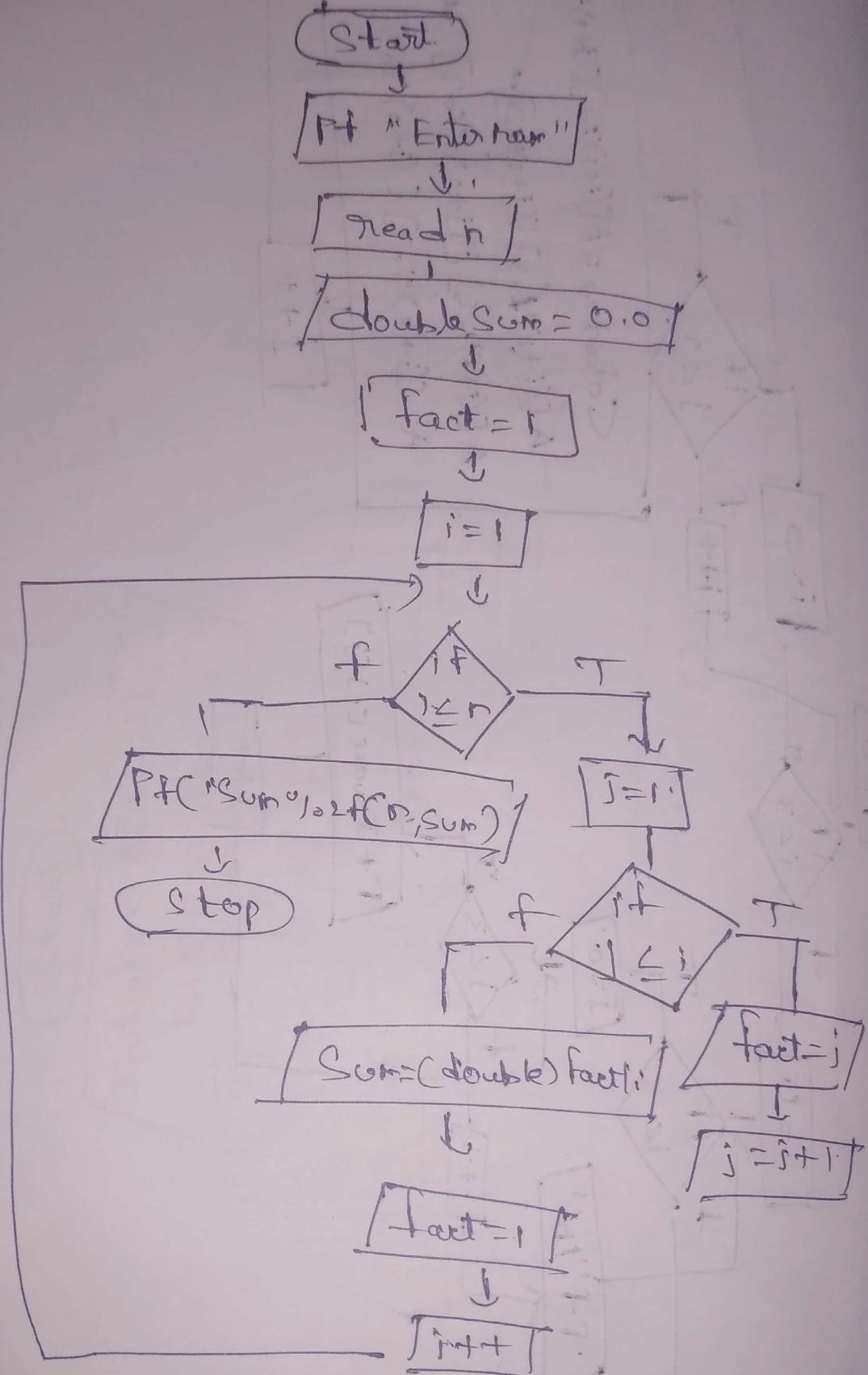
29) Take two date from user and calculate no. of days b/w them



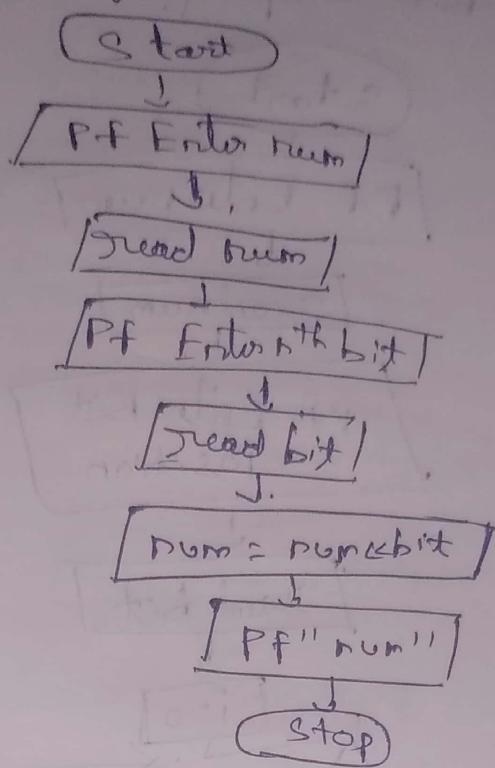
So3 Inverse of 3x3 matrix



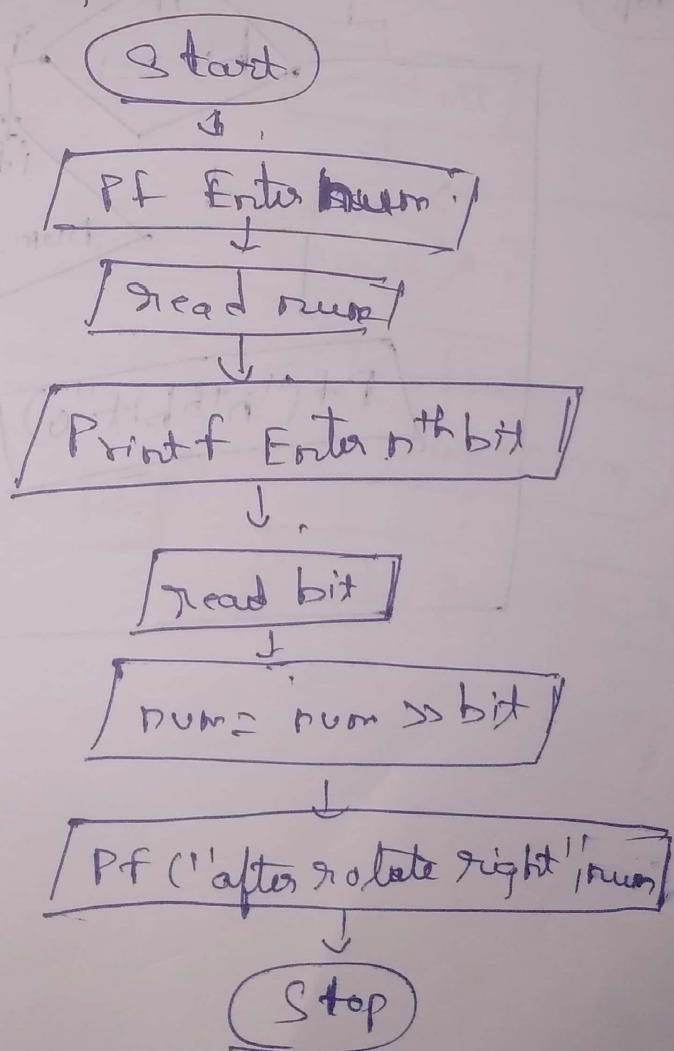
$$(31) \quad \frac{1!}{1} + \frac{2!}{2} + \frac{3!}{3} + \dots + \frac{n!}{n}$$



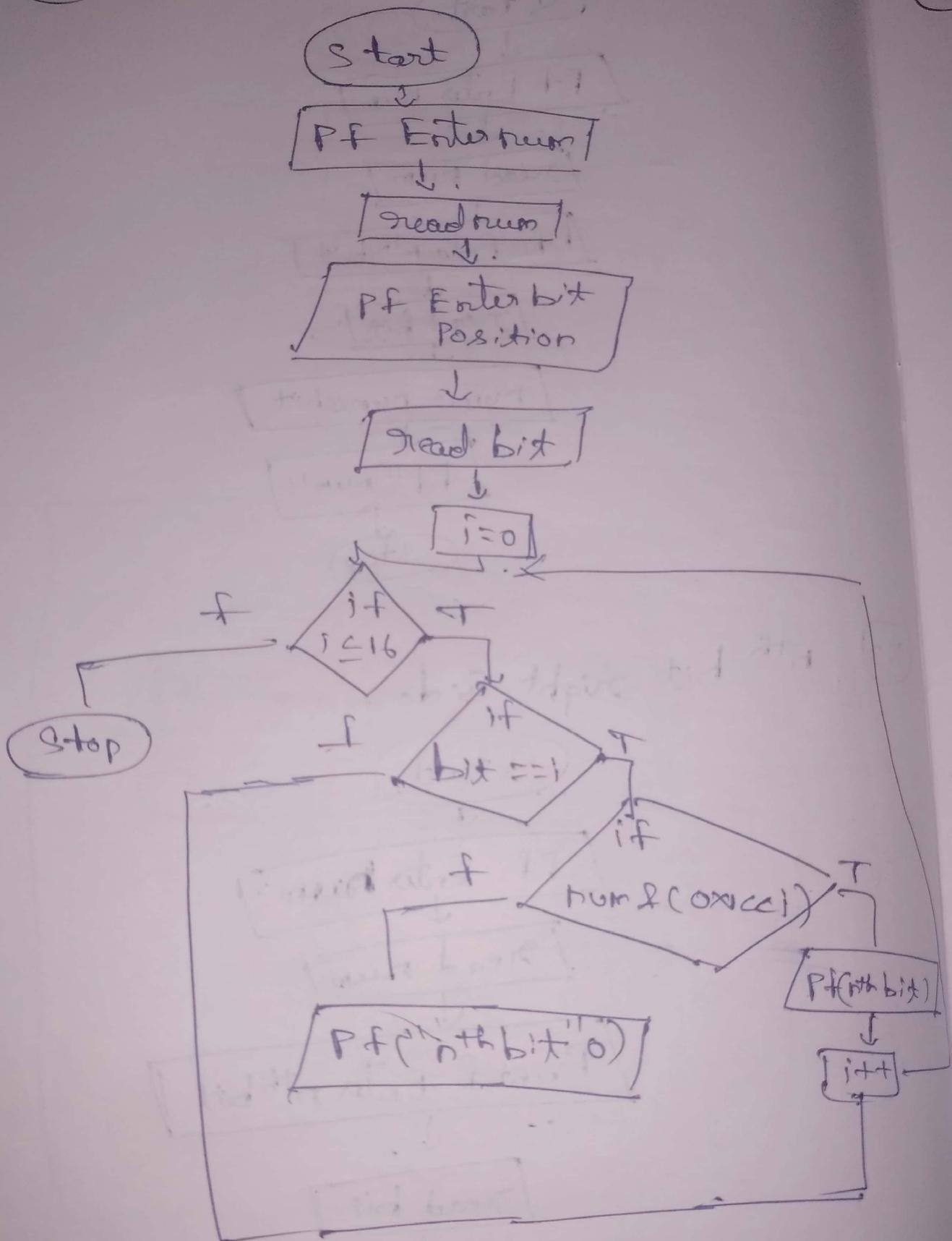
32

 $n^{\text{th}}$  bit left side

33

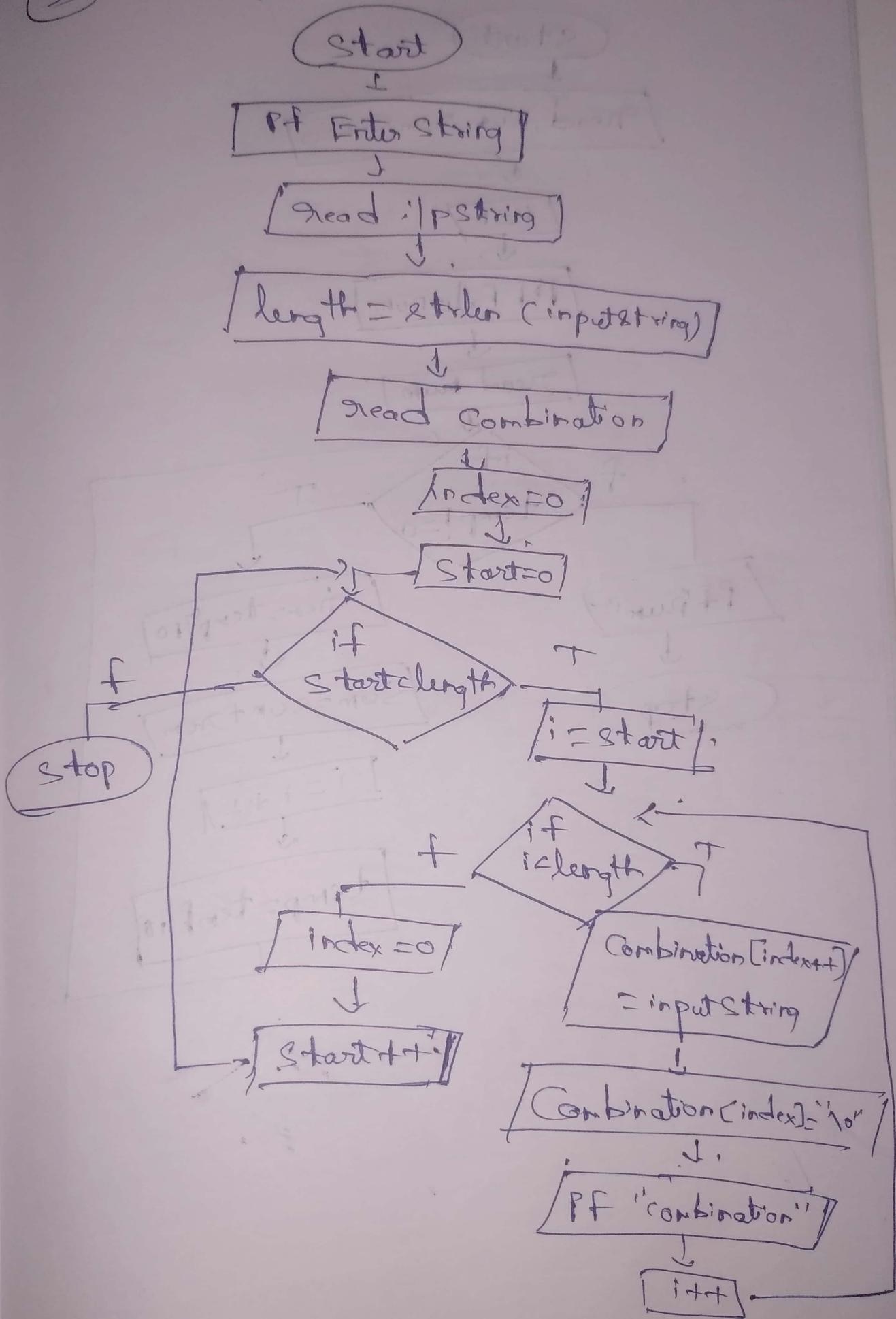
 $n^{\text{th}}$  bit right side.

34  $n^{th}$  bit display.

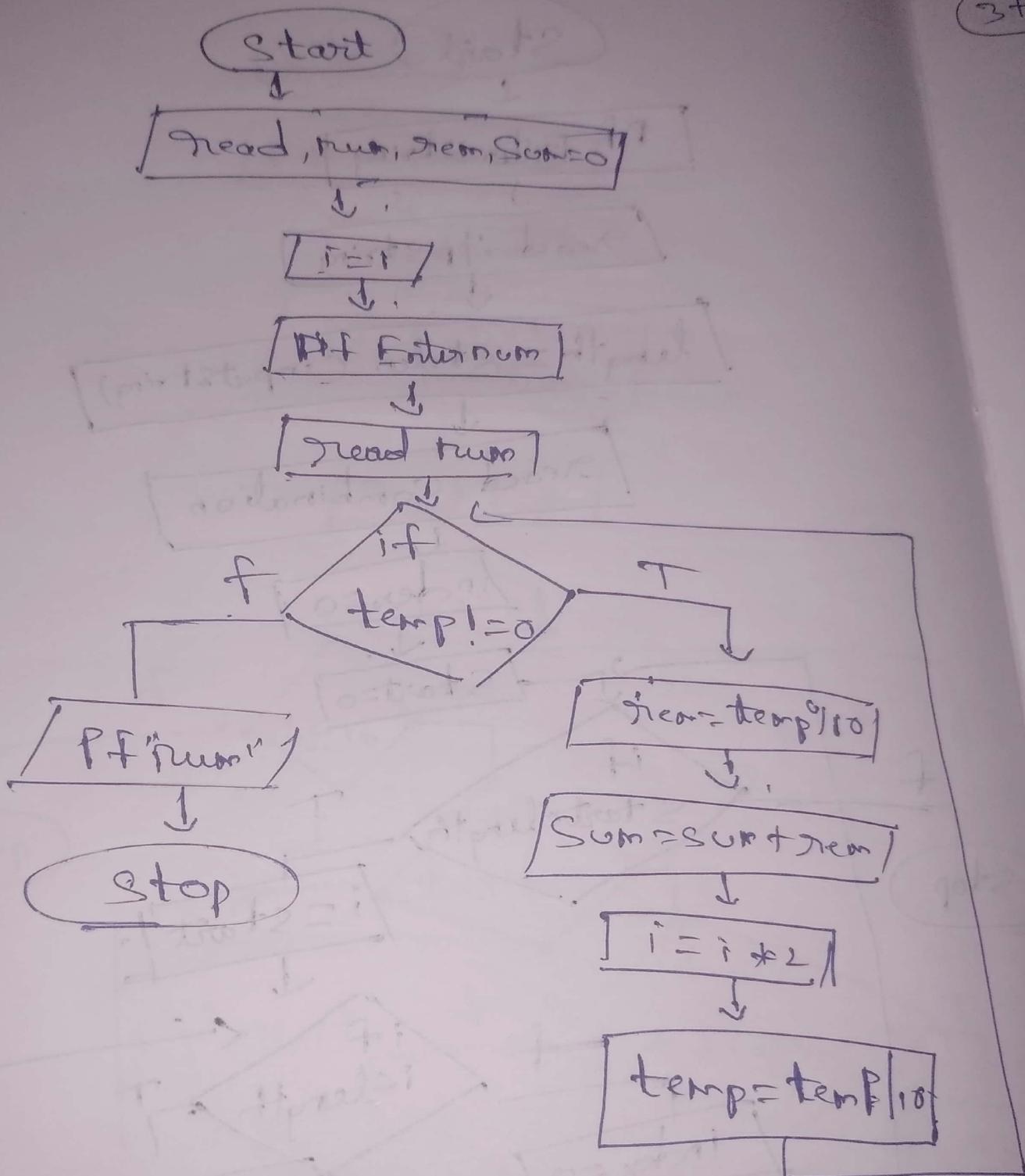


35

## String Combination

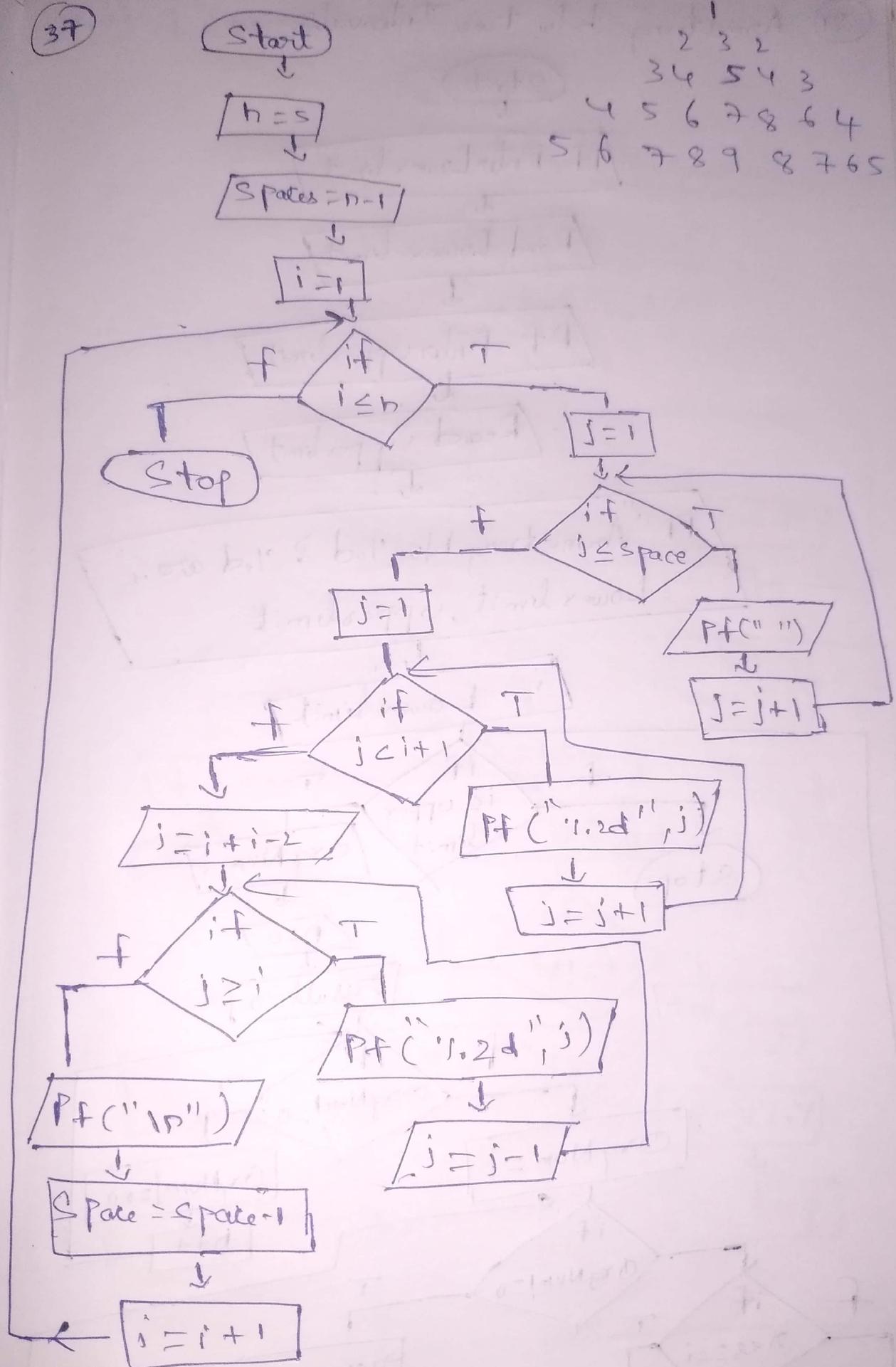


36 Binary to Hexa

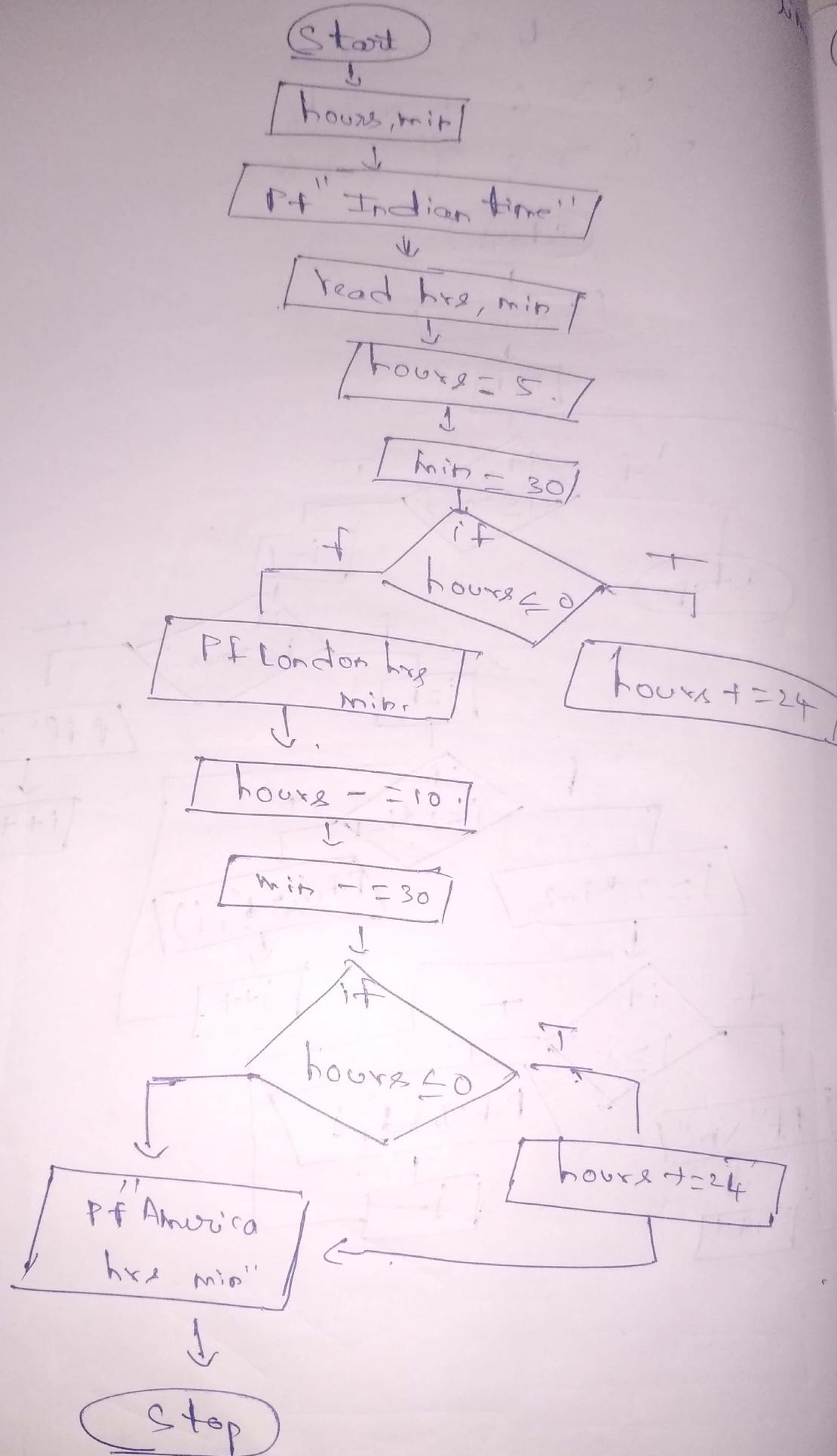


37

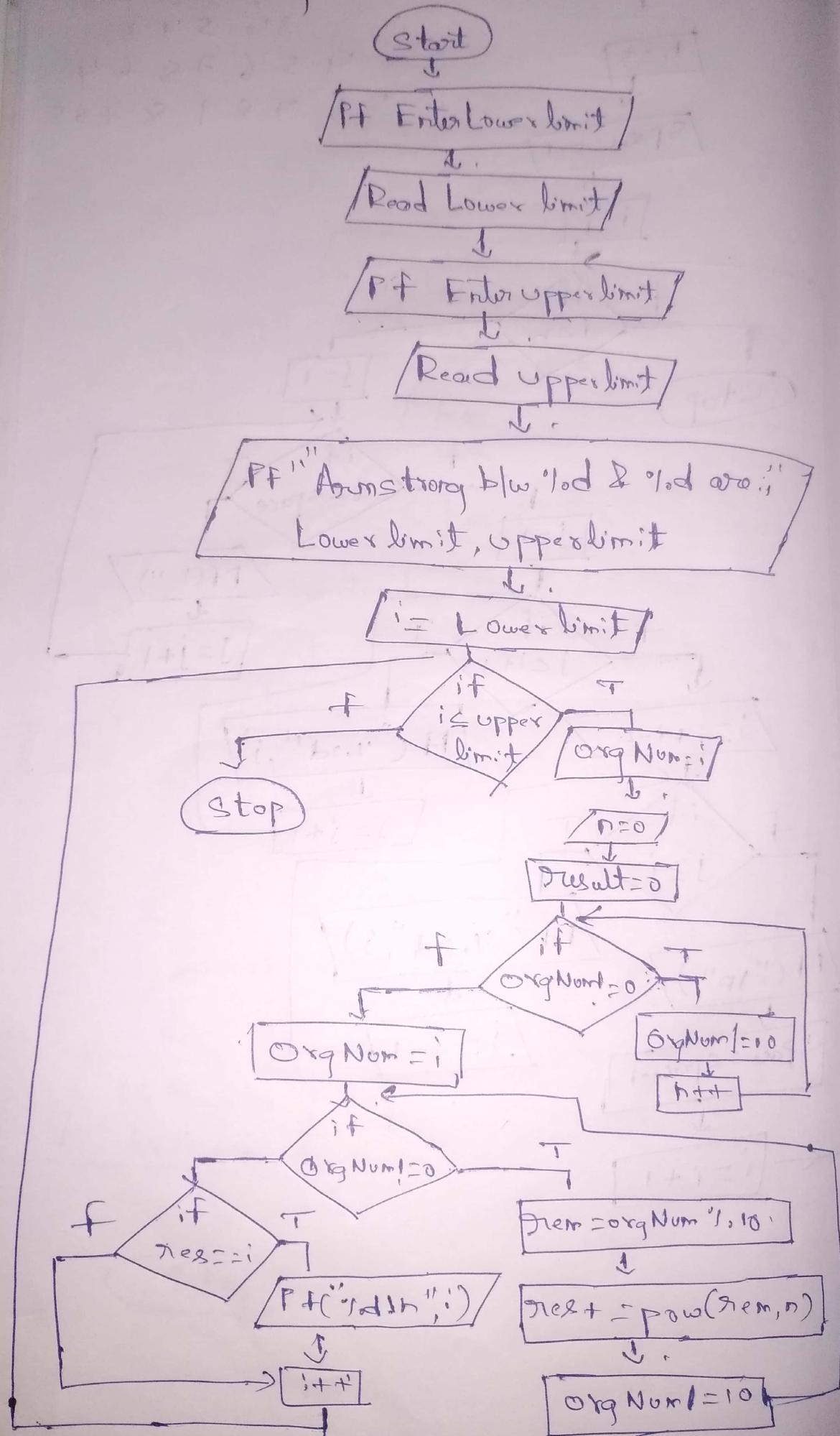
37



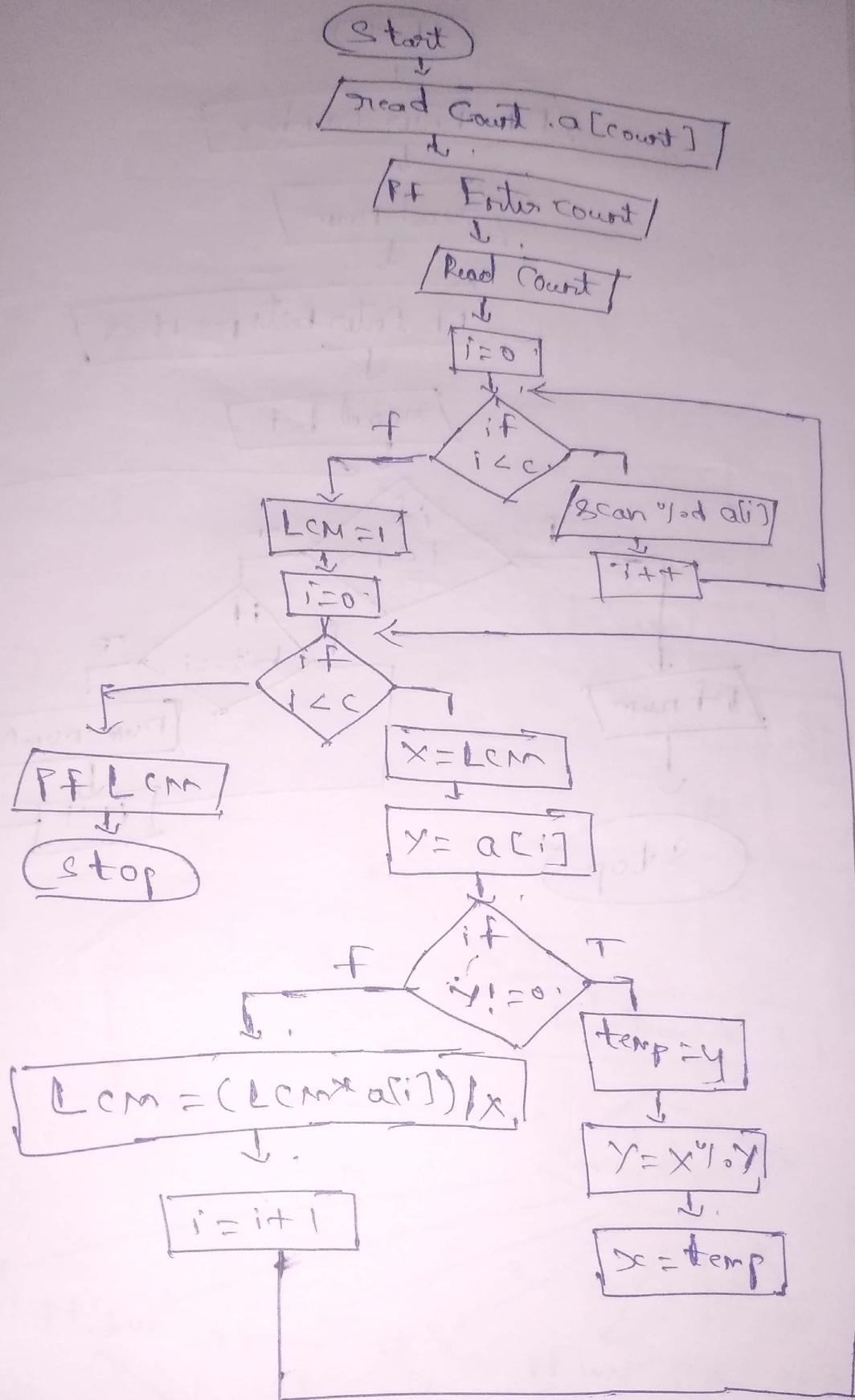
(38) Indian time to London & America



37 Armstrong b/w two intervals

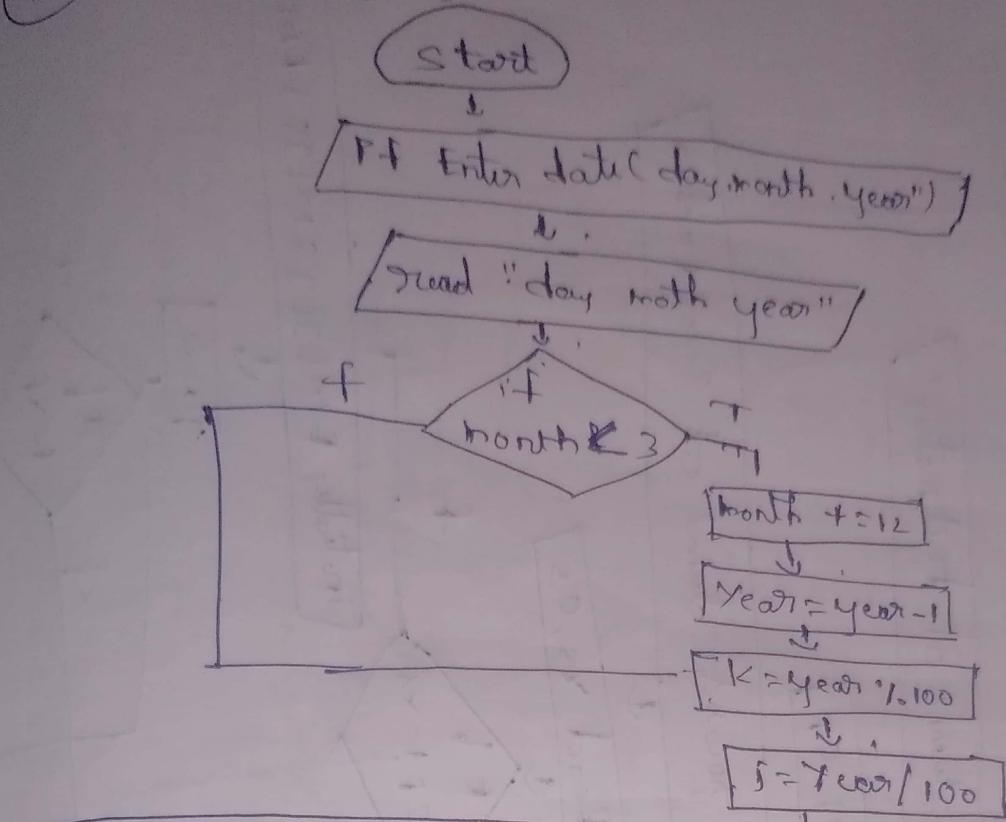


(40) Lcm of n numbers:

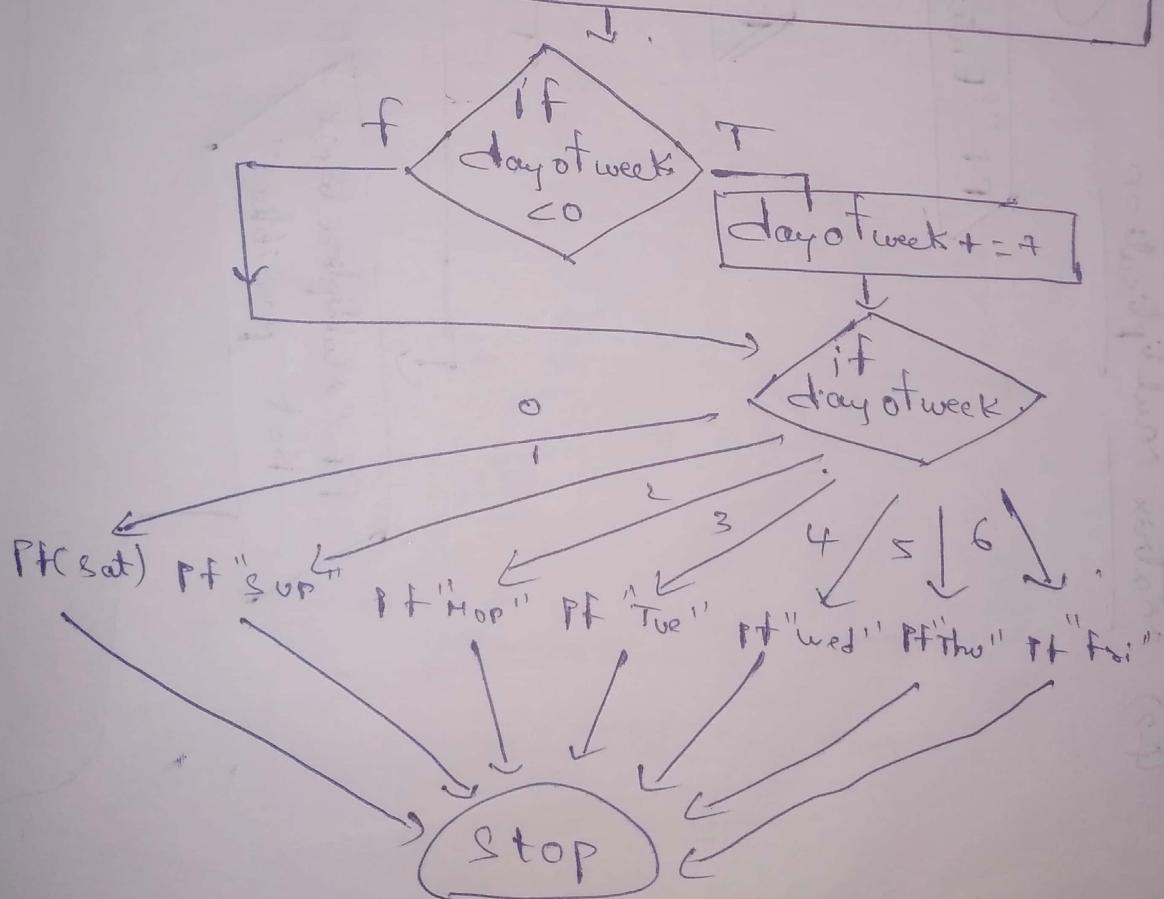


41

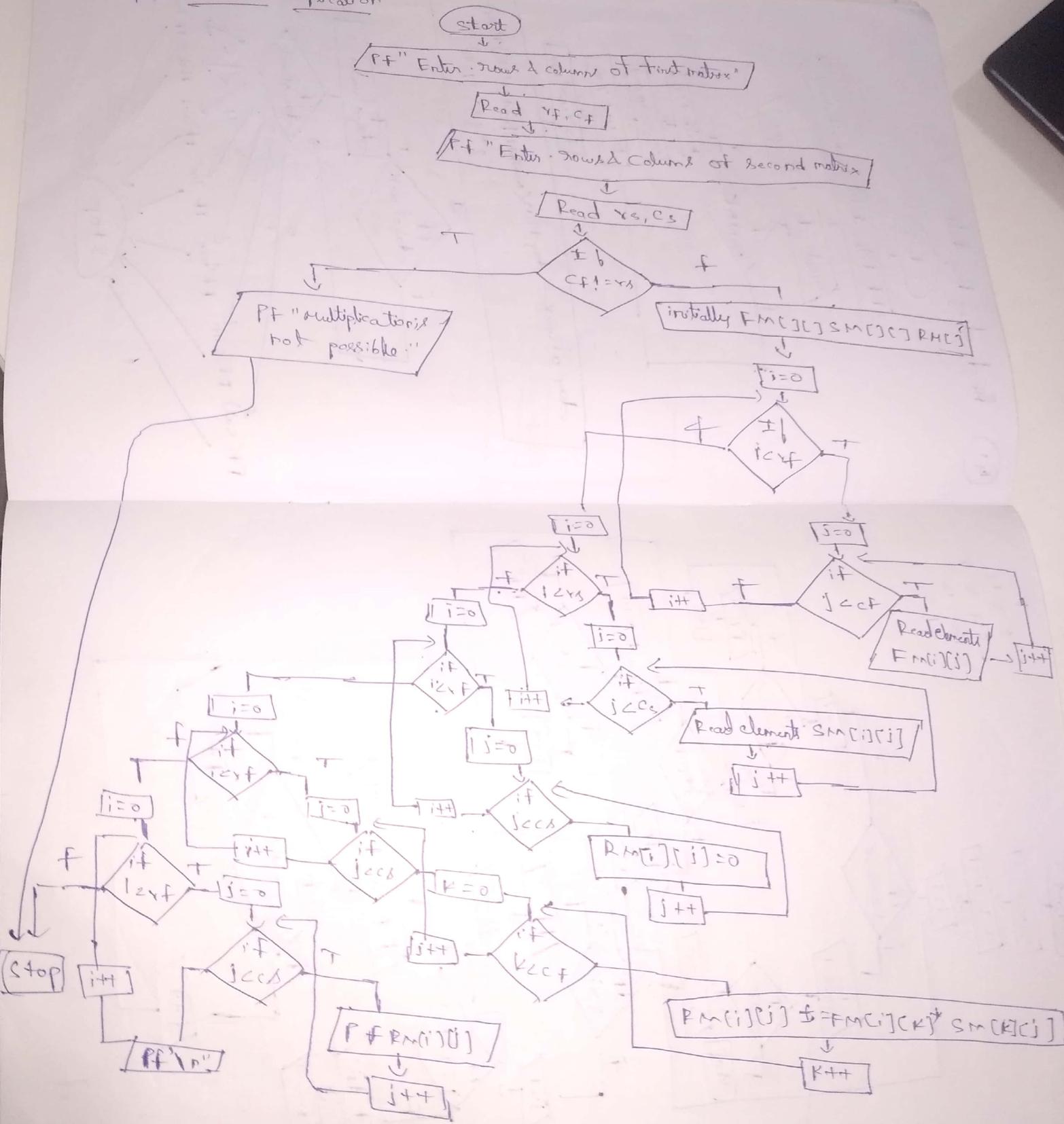
find day by date

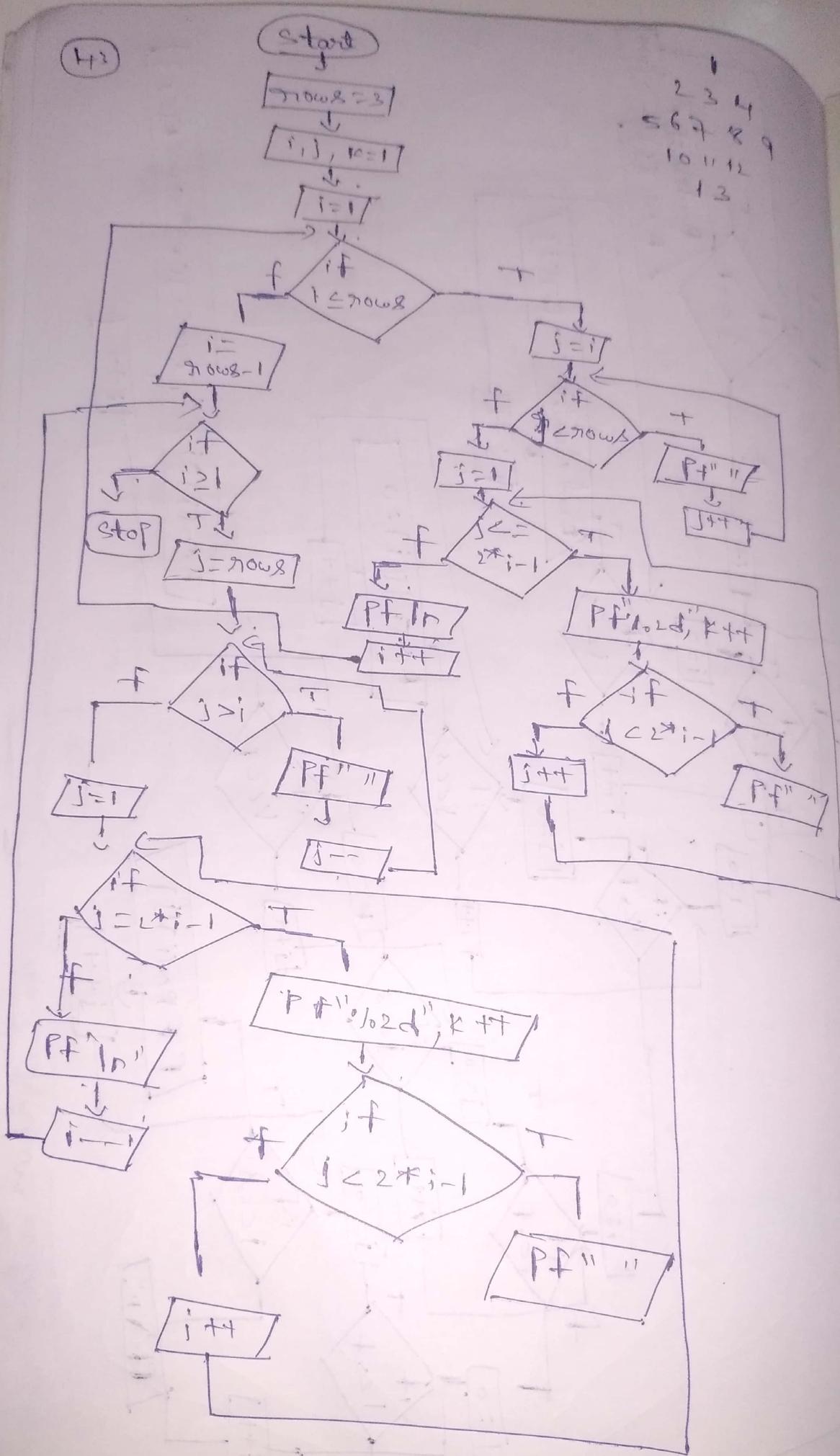


$$\text{day of week} = \text{day} + ((13(\text{month}+1)/5) + K + (K/4) + (I_4) - (2 * S)) \% 7$$



#### 4.2) Matrix multiplication





(44)

