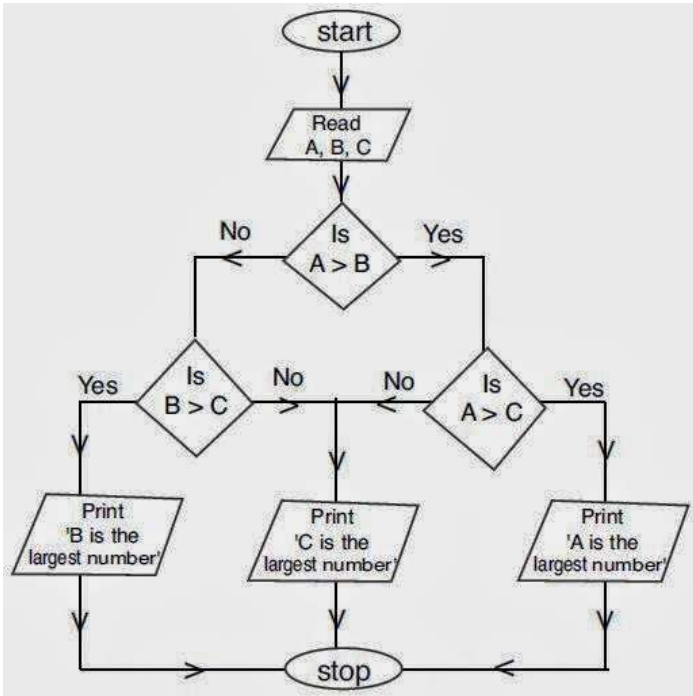
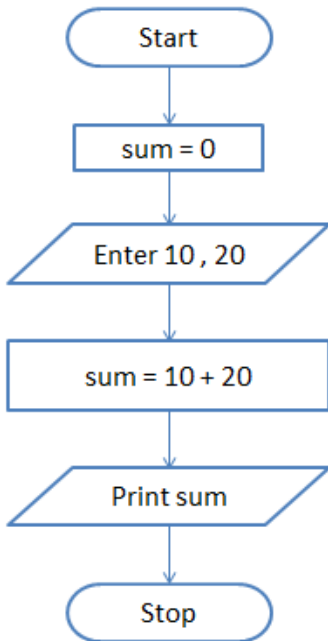




5. Write the pseudo code? What is the purpose of this algorithm?



6. Write the pseudo code?



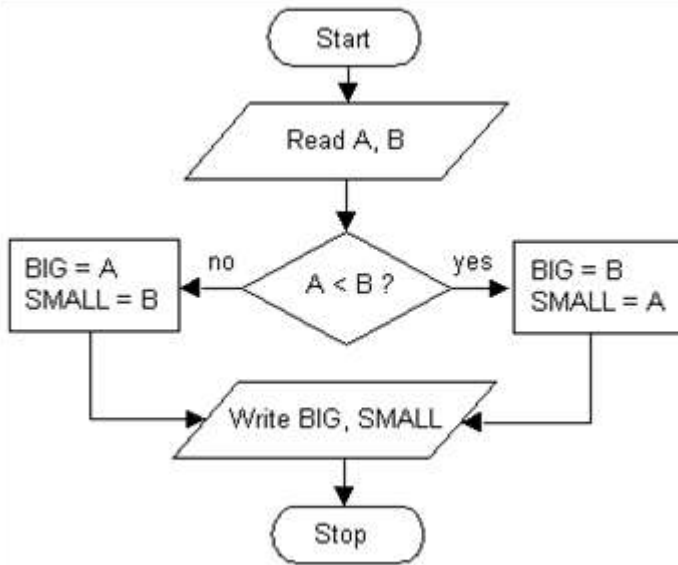
7. The following pseudo code can be used to calculate the square and cube value of a number. Convert the algorithm into flowchart.

- 1 Start
- 2 Read value of N
- 3  $S = N * N$
- 4  $C = S * N$
- 5 Write values of S, C
- 6 Stop

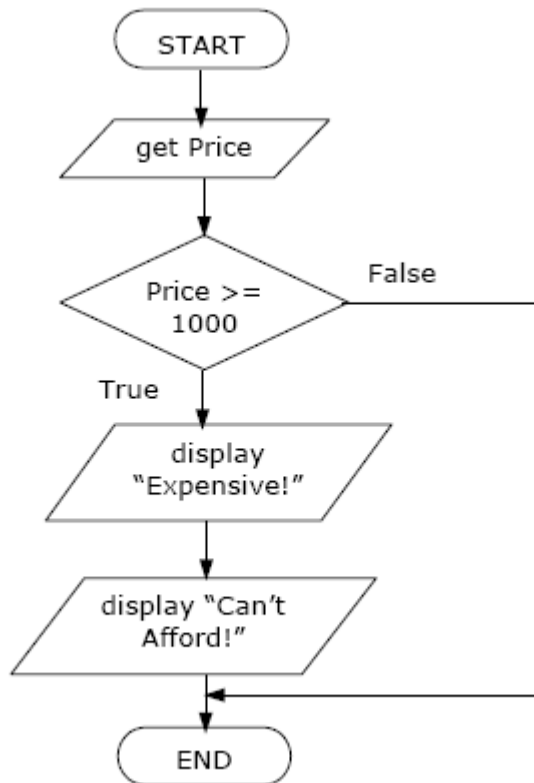
8. The following pseudo code can be used to find the biggest number. Convert the algorithm into flowchart.

- 1 Start
- 2 Read A, B
- 3 If  $A > B$ , then
- 4  $BIG = A$ ,
- 5 Else
- 6  $BIG = B$
- 7 Write BIG
- 8 Stop

9. Write the pseudo code for the following flowchart.



10. Write the pseudo code for the following flowchart.



11. List the advantages of loops in algorithms.

12. List the two real world applications which are using the infinite loops.

13. Draw the flowchart and find the output.

```
START
INPUT a=1
WHILE (a<10) DO
    OUTPUT(a)
    a = a+4
ENDWHILE
a = a+100
OUTPUT(a)
END
```

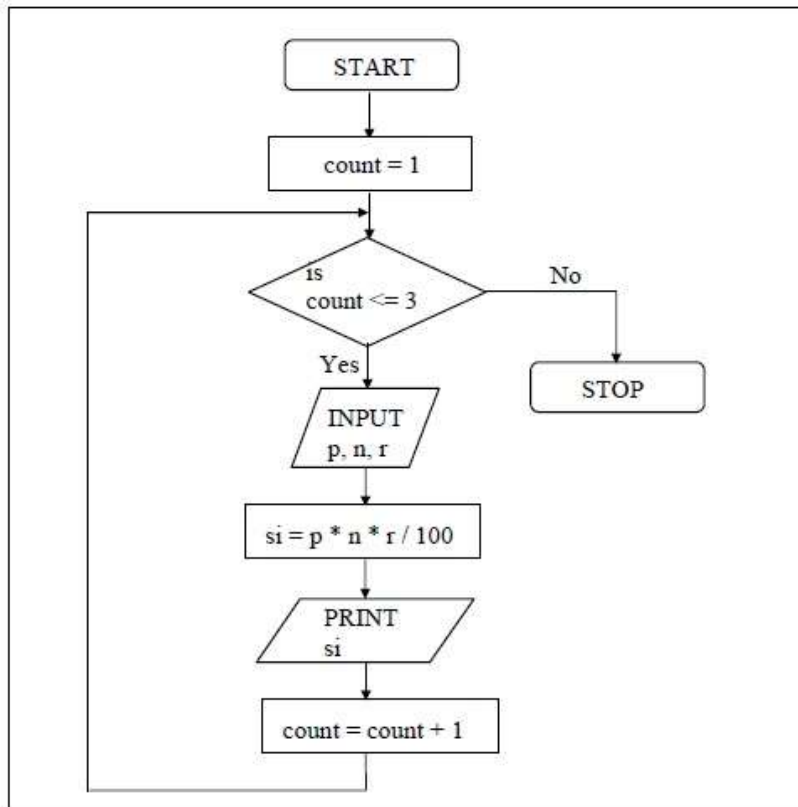
14. Draw the flowchart and find the output.

```
START
INPUT x=0, s=0
Repeat
    OUTPUT(s)
    X = x+4
    s = s +10
UNTIL (x>10)
s= s+100
OUTPUT(a)
END
```

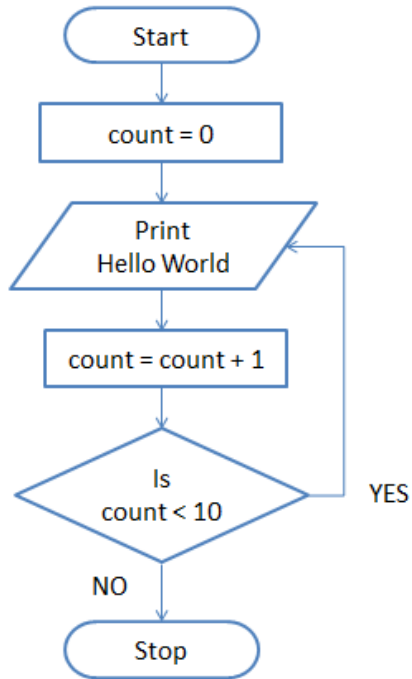
15. Draw the flowchart and find the output:

```
BEGIN
sum =0
FOR i=1 TO 4 DO
  OUTPUT sum
  Sum = sum + 100
ENDFOR
Output i
END
```

16. Write the pseudo code in using a while and for loop separately?



17. Write the pseudo code for the following algorithm?

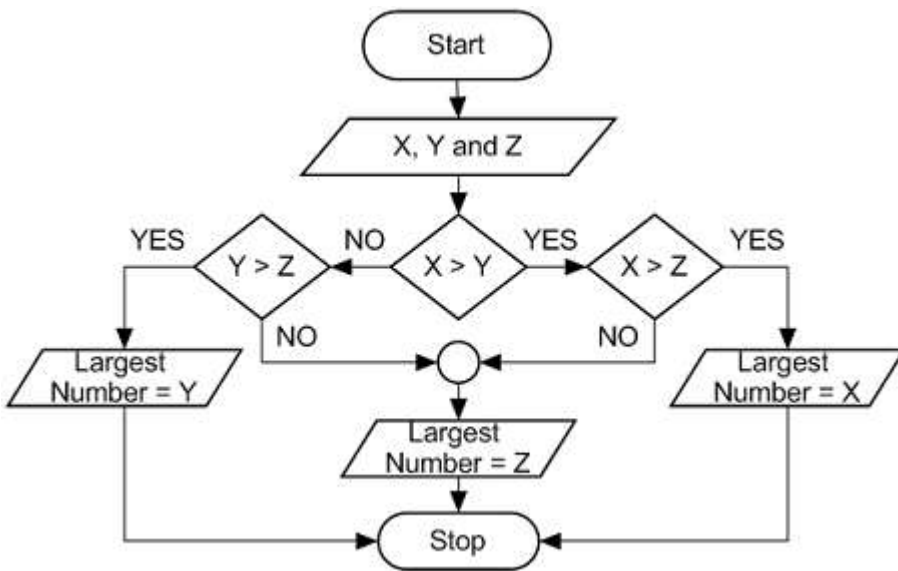


18. Write an algorithm in pseudo code to get the following grades when a user enter the marks.

Marks Range	Grade
100-75	A
74-65	B
64-50	C
49-35	S
34-00	F

19. List the three differences between WHILE loop and REPEAT loop.

20. Write the pseudo code.



21. Write an algorithm in pseudo code to get the following outputs.

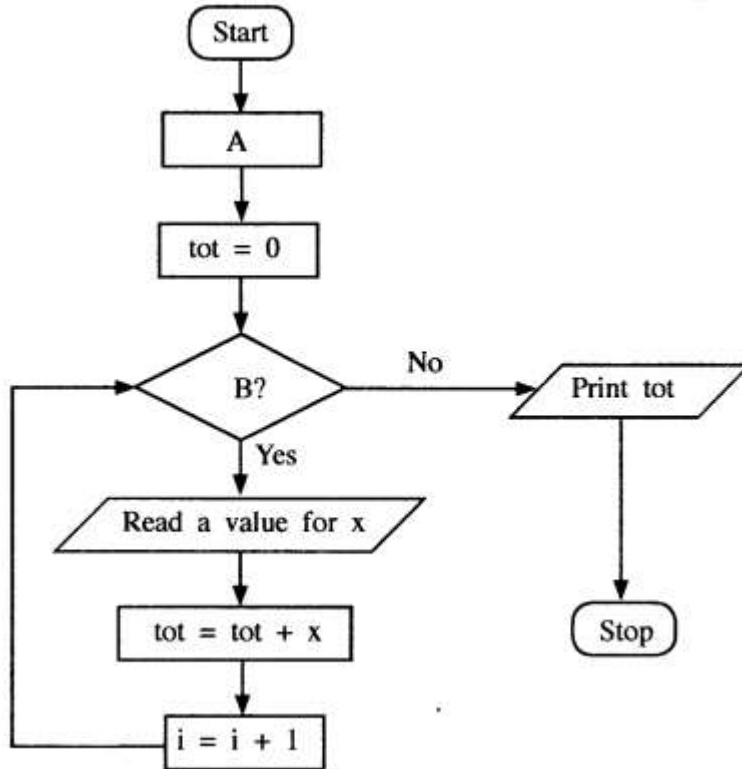
2 4 6 8 10 ..... 100



22. Write an algorithm in pseudo code to get the following outputs.

1 4 9 16 25 ..... 100

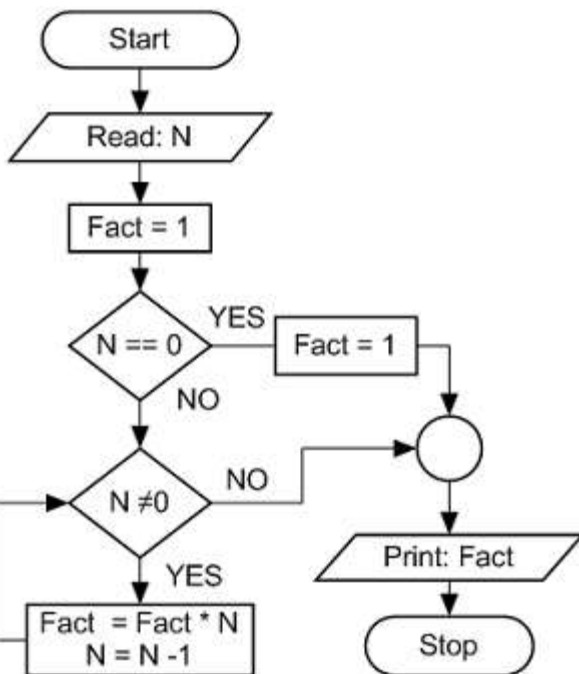
23. The algorithm represented by the following flowchart to reads 100 numbers and prints the sum of them.



In order to execute the above flowchart correctly, A and B should be replaced by.....and .....

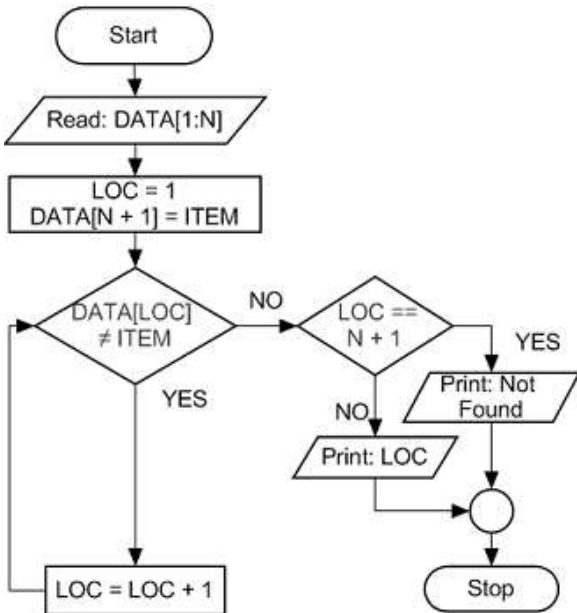
24. The consumption of electricity at houses is charged based on the number of units consumed. The first 50 units are charged at Rs.5.00 per unit, and the rest at Rs. 10.00 per unit. Draw a pseudo code to represent an algorithm that can be used to compute the total amount to be charged from a householder when the household number and present and the previous reading of the electricity meter are given.

25. Write the pseudo code and find the purpose of the flowchart.

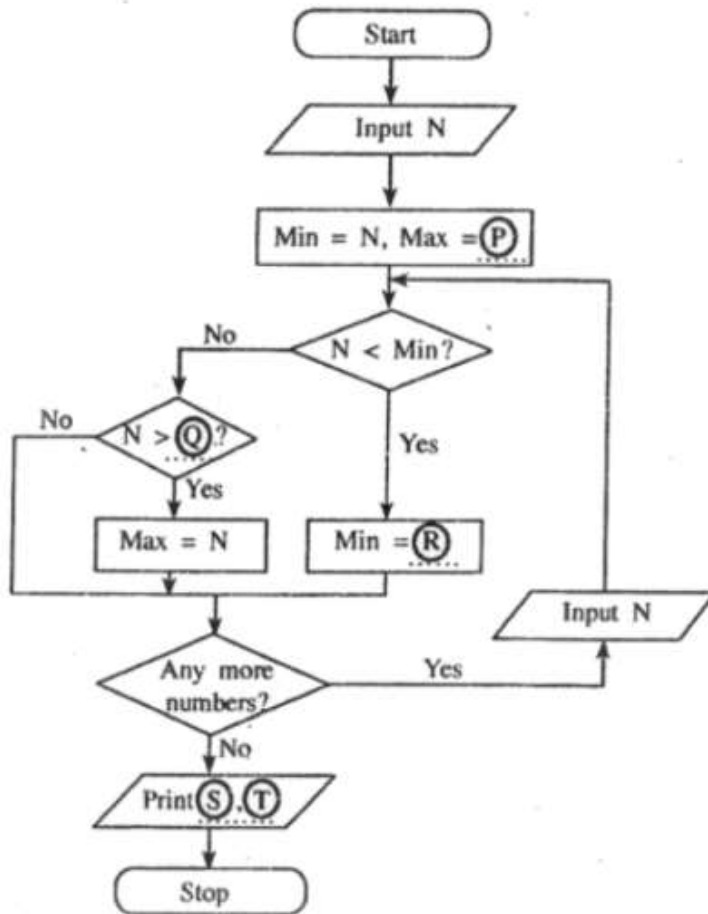


- i. Write down the input(s) of the flow chart.
- ii. Write down one possible output of the flow chart.
- iii. Write the condition of the iteration.
- iv. Write the condition for the selection.
- v. Write the statements that helps to terminate the iteration.

26. Write the pseudo code and find the output.



27. The following algorithm is used to find the minimum and the maximum number when some numbers are input. Find the value for P, Q, R, S and T from the following list. You can repeat the same value for the answer.



{Max, N, MIN}

27. The triangle can be classified as equilateral triangle, isosceles triangles and scalene triangles. An **equilateral** triangle has **three equal angles**. An **isosceles** triangle can be drawn in many different ways. It can be drawn to have **two equal angles**. A **scalene** triangle has **three different angles**. Write a pseudo code to decide the triangle is equilateral, isosceles and scalene triangle based on the three angles of the triangle input by the user.

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28. You are requested to write a program to read an integer number and display the output as the prime number or not. [More concisely, a prime number is a positive integer having exactly one positive divisor other than 1, meaning it is a number that cannot be factored. For example, the only divisors of 13 are 1 and 13, making 13 a prime number, while the number 24 has divisors 1, 2, 3, 4, 6, 8, 12, and 24, making 24 not a prime number. ]. Propose an algorithm to solve the above problem in pseudo code.

29. Write an algorithm in pseudo code to display a minimum number when the ten positive integer numbers are input.

30. Write an algorithm in pseudo code to display a minimum number when any number of numbers are input. Program must be terminated when the input number is negative.

31. Write an algorithm in pseudo code to read index number, name and d marks for three subjects for a student and save them in a text file called as marks.txt using a function called Insert Marks(). When the user enters -1 as index number we need to stop the process. Then read the marks.txt file and calculate the average marks save in another file named as output.txt.

32. Develop an algorithm in pseudo code to accept electricity bill details (i.e) customer number , customer name , previous month meter reading and current month reading and then find number of units consumed by the customer and amount payable to electricity department by performing following checks on the charges. The program must be terminated when the customer number is entered as -1.

<u>Units</u>	<u>Charge (Rs.)</u>
Less than 0	Invalid
1 to 50	5
51 to 100	10
101 to 150	20
More than 151	50

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33. Write an algorithm in pseudo code to display the number of even numbers when any number of numbers are input. Program must be terminated when the input number is negative.

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34. If a user input two numbers as 2457 and -1 respectively, find the output of the program.  
 What is the purpose of the program? Write the pseudo code for the following flowchart.

