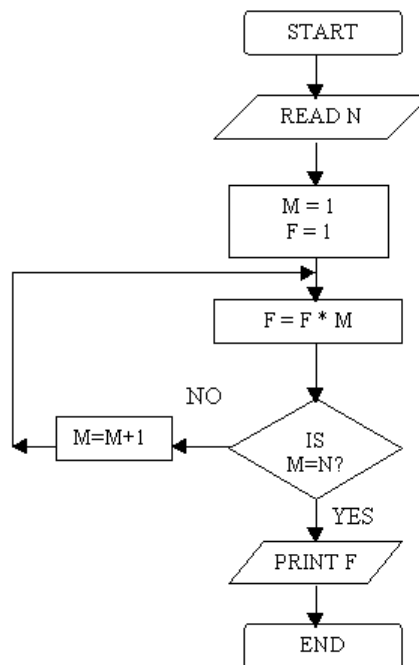




### Flowcharts

1. Draw a flowchart to calculate the average of 5 numbers.
2. Draw a flowchart that displays all numbers divisible by 3 in the range 1 to 100.
3. Draw a flowchart to determine whether a number is prime or not.
4. Draw a flowchart to read a number  $x$  and print “The number is +ve” if  $x > 0$  or “The number is -ve” if  $x < 0$  or “The number is 0” if  $x = 0$ .
5. Draw a flowchart to read a radius  $r$  and calculate the area of a circle with a radius= $r$ .
6. Draw a flowchart for a program that accepts 10 numbers and displays their sum.
7. Your summer surveying job requires you to study some maps that give distances in kilometers and some that use miles. You and your coworkers prefer to deal with metric measurements.
  - a. Write the steps necessary to perform the necessary conversions.
  - b. Draw the flowchart that illustrates your steps of solution.
8. Draw a flowchart to read an integer  $N$  and print its factorial.
9. Trace the following flowchart and state the function it does. Note:  $N > 0$



10. Draw a flowchart to read a number  $N$  and print all its divisors.
11. Draw a flowchart for computing the sum of the digits of any given number.
12. Draw a flowchart that reads in 200 numbers and then print out their sum.
13. Draw a flowchart to compute the sum of squares of integers from 1 to 50.
14. Draw a flowchart to arrange the given data in an ascending order.
15. A factory divides its workers into three skill levels. Unskilled workers receive L.E. 8.15 per hour, semiskilled workers receive L.E. 12.55 an hour, and skilled workers L.E. 18.60 an hour. Draw a flowchart to calculate a worker's weekly pay. Your flowchart input should consist of the hours worked and a skill level indicator.