

Flowchart Exercises

Standard Flowchart Symbols Used

Every flowchart in this document uses the same four standard symbols, shown below:



Ellipse (oval) – Start or End of the algorithm.

Rectangle – A process step: a calculation or assignment.

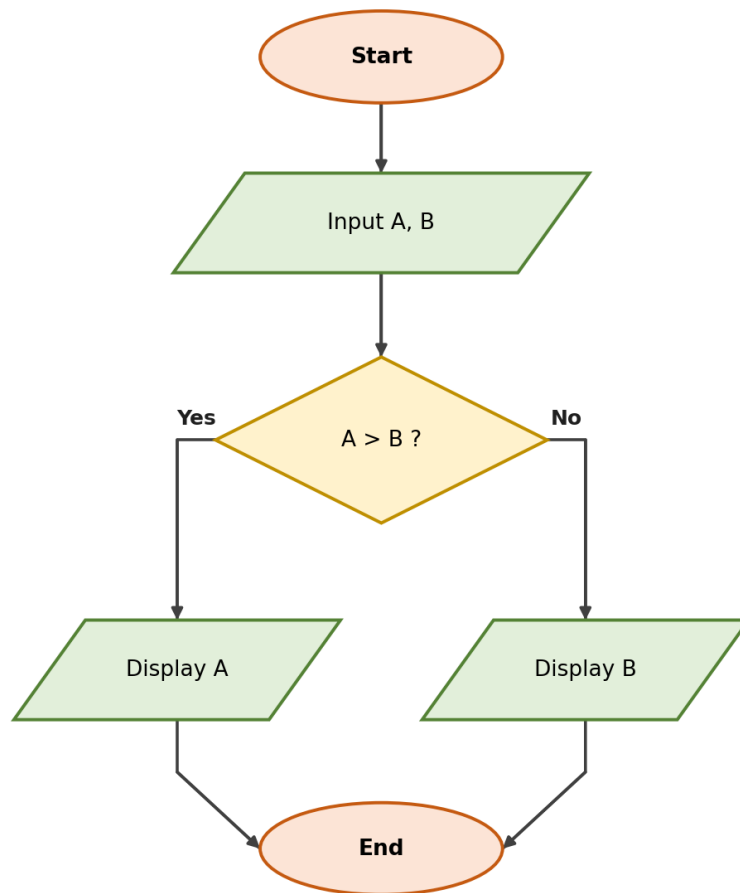
Diamond – A decision: the flow branches on a Yes/No (true/false) condition.

Parallelogram – Input or Output: reading a value in, or displaying a value out.

Arrows show the direction of flow, and are labelled Yes / No at decision points to show which branch to follow.

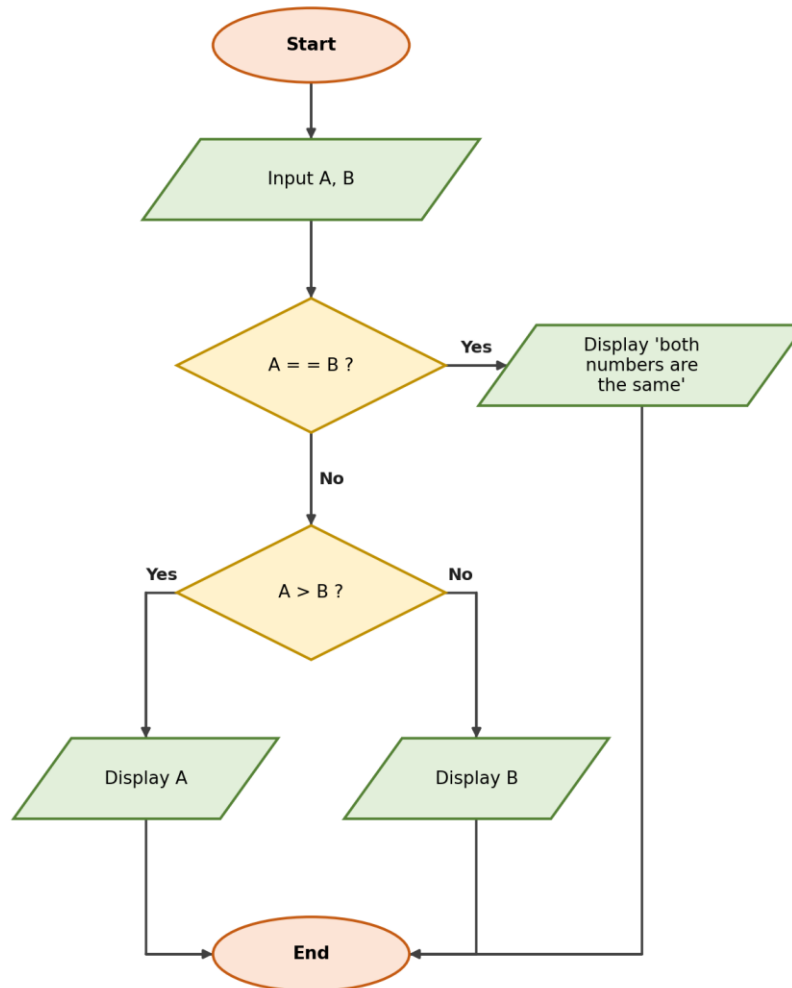
Question 1

Draw a flow chart to find and display the largest of the two inputted numbers.



Question 2

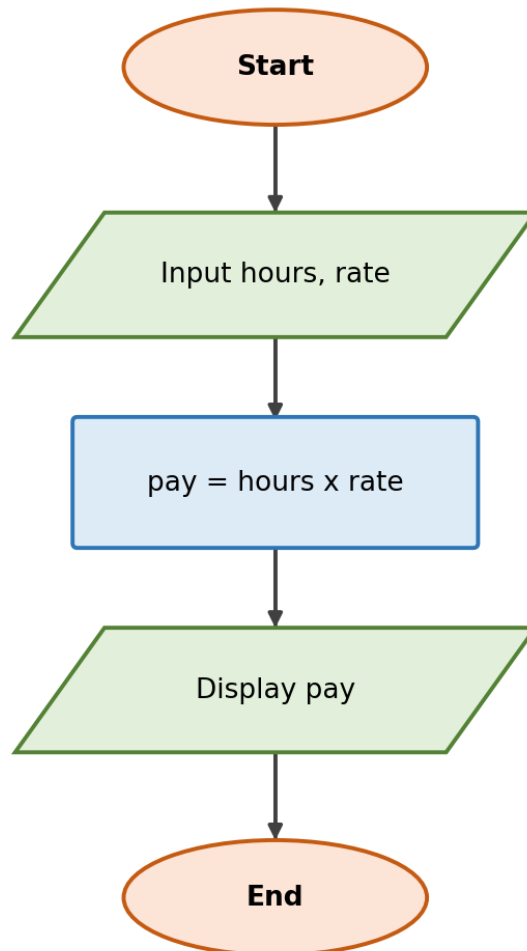
Draw a flow chart to find and display the larger of two input numbers. Add a validation to check whether both numbers are equal, if it is display 'both numbers are the same'.



Question 3

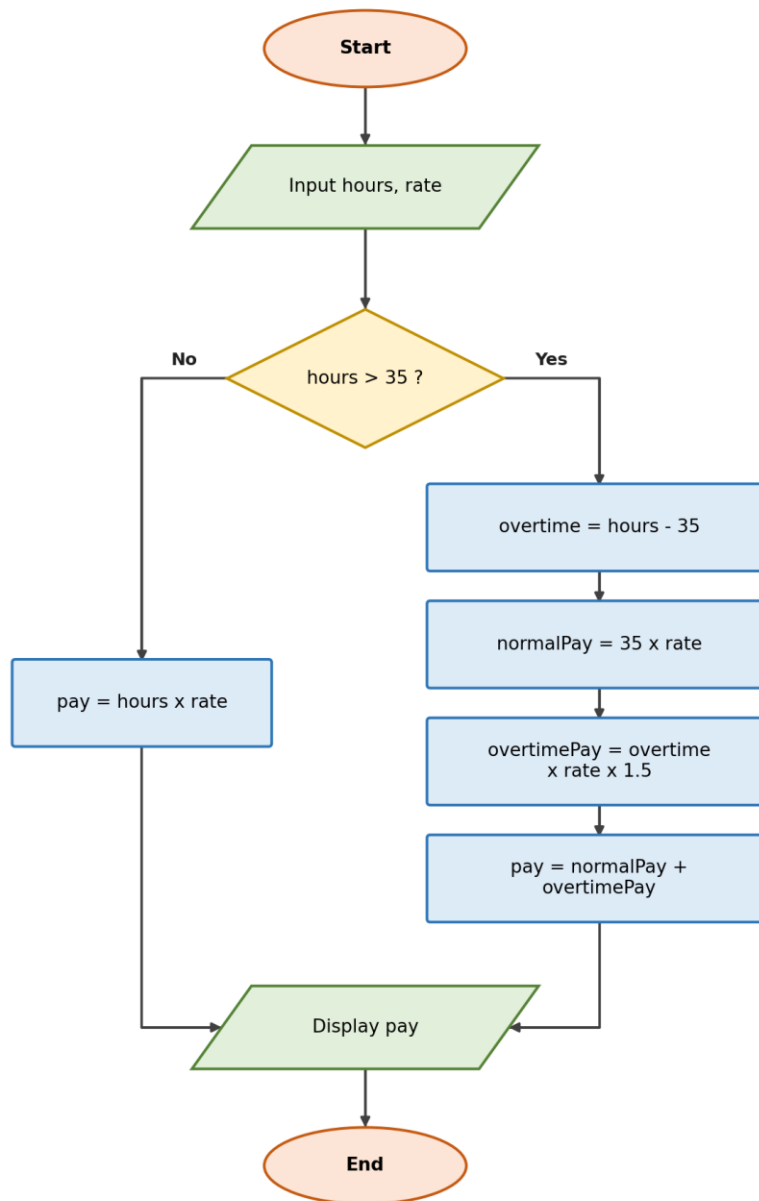
Draw a flow chart to calculate pay.

Hint: $\text{Pay} = \text{hours} \times \text{rate}$



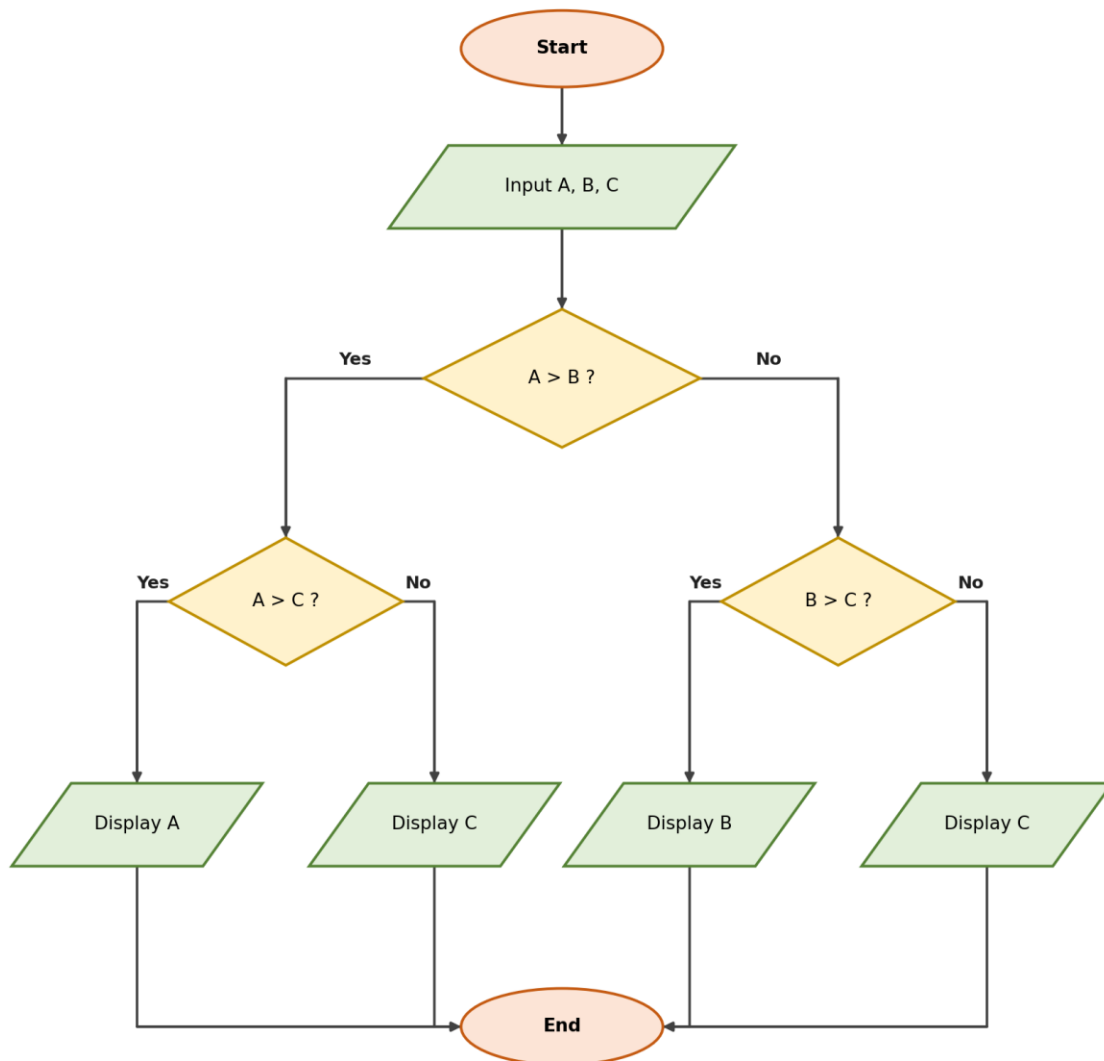
Question 4

Draw a flow chart to calculate weekly wages including normal hours and overtime hours, overtime hours are paid 'time-and-half' of rate of pay. Hours worked more than 35 hours are considered as overtime hours.



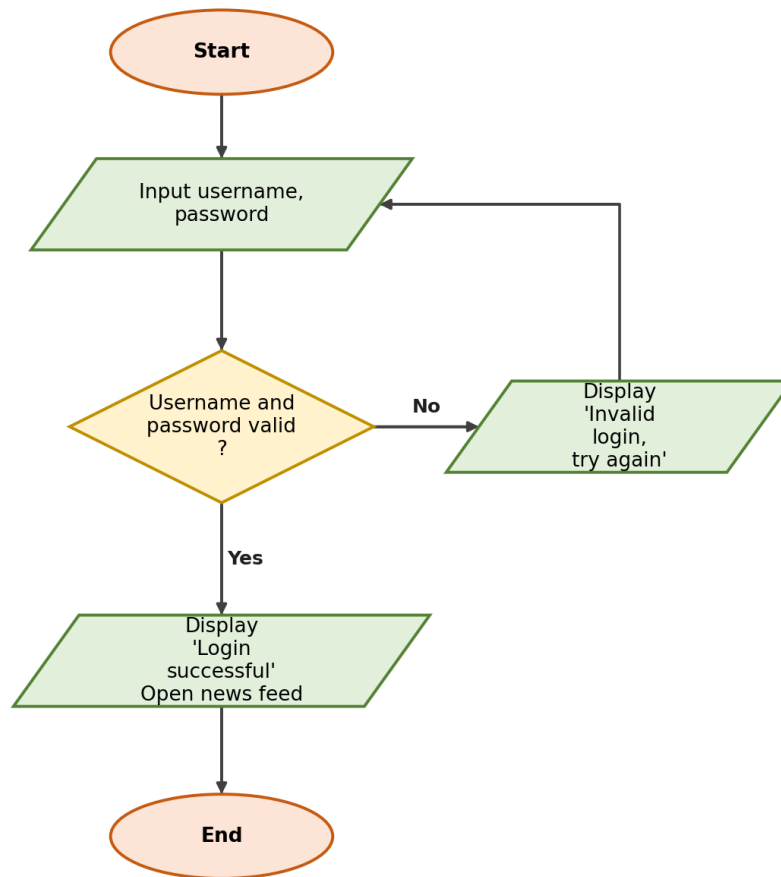
Question 5

Draw a flowchart to find the largest of three input numbers A, B, and C.



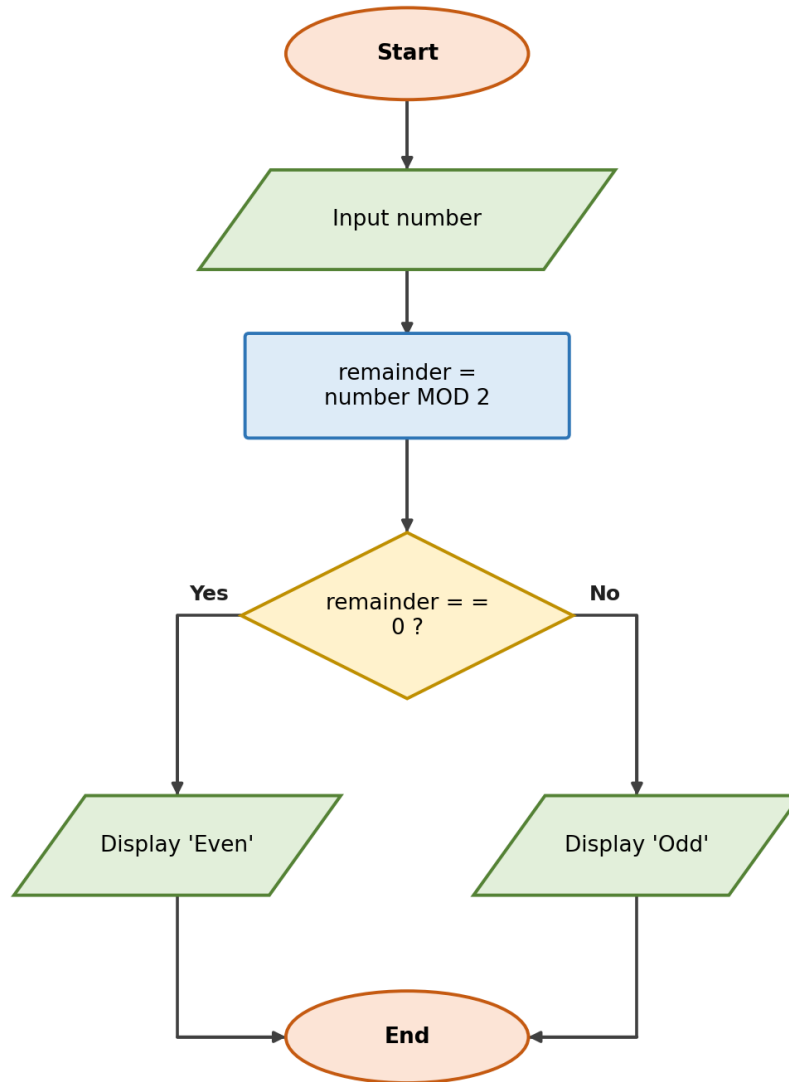
Question 6

Draw a flowchart to log in to Facebook account.



Question 7

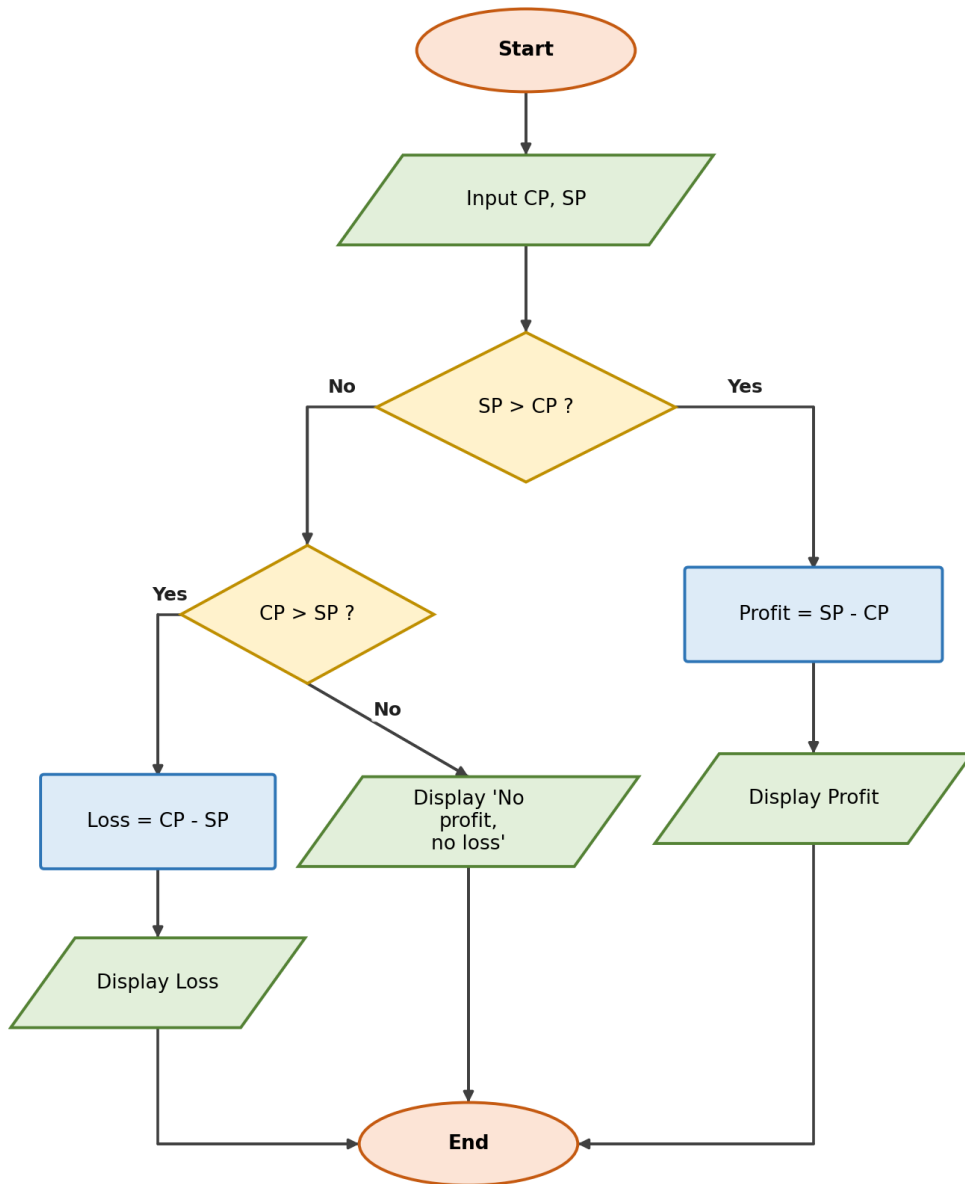
Draw a flow chart to find and display a given number is odd or even.



Question 8

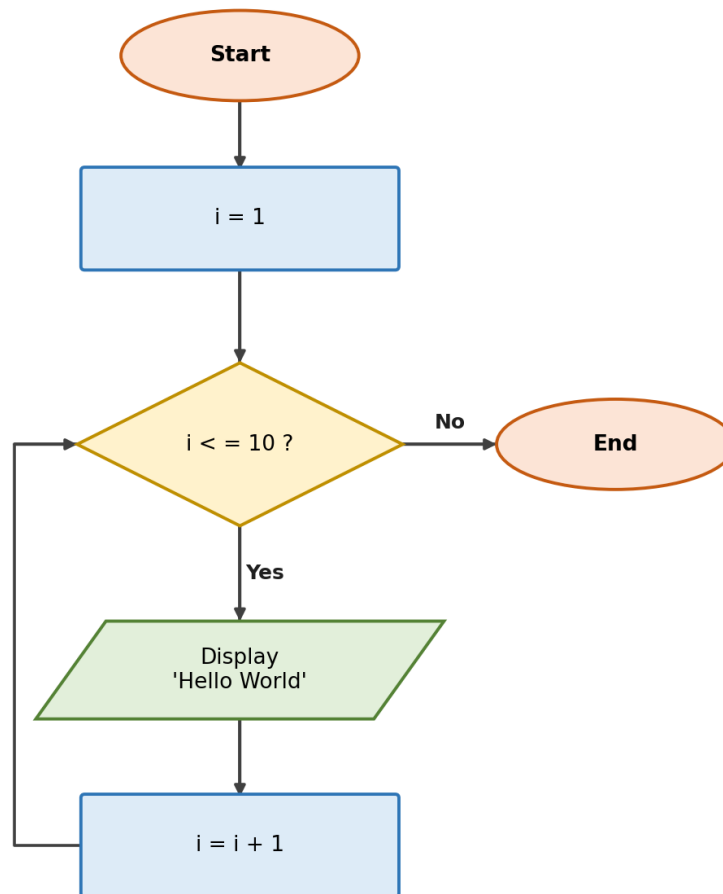
Flowchart – How to find profit or loss.

Hint: Profit = $SP - CP$; Loss = $CP - SP$



Question 9

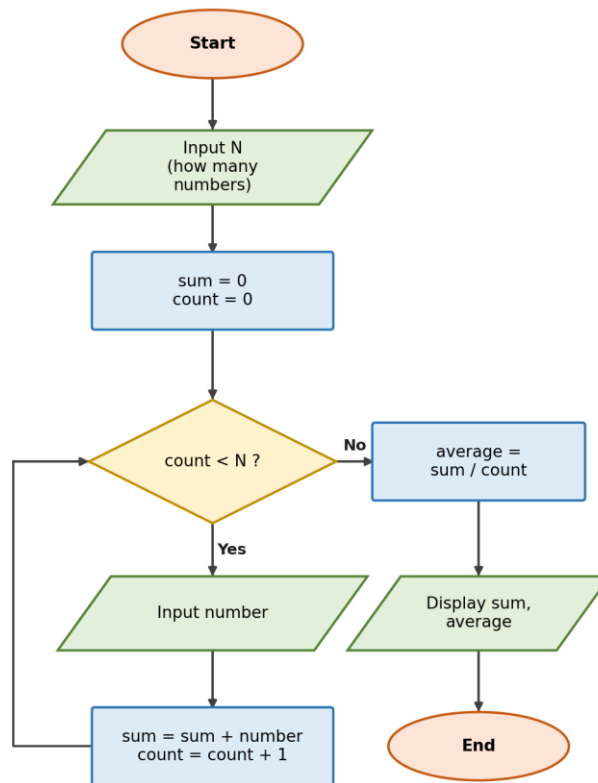
Draw a flow chart to print “Hello World” 10 times.



Question 10

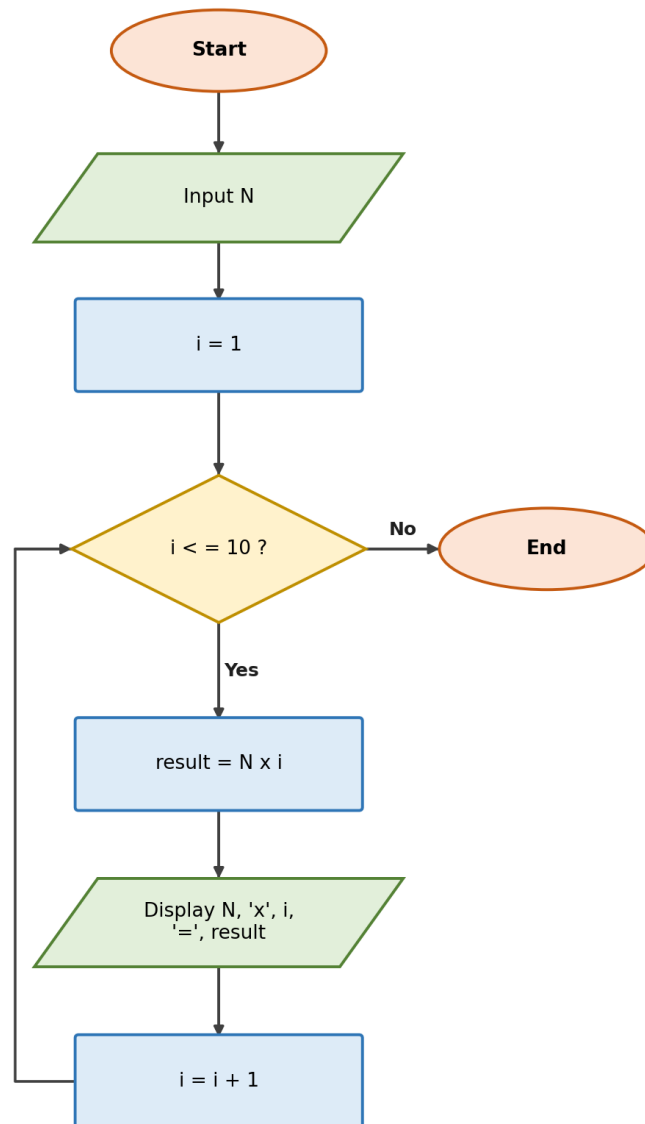
Draw a flowchart to find the total and average of several input numbers.

The user is first asked how many numbers (N) they want to enter; the loop then runs exactly N times, reading one number per pass and keeping a running count, before the average is calculated.



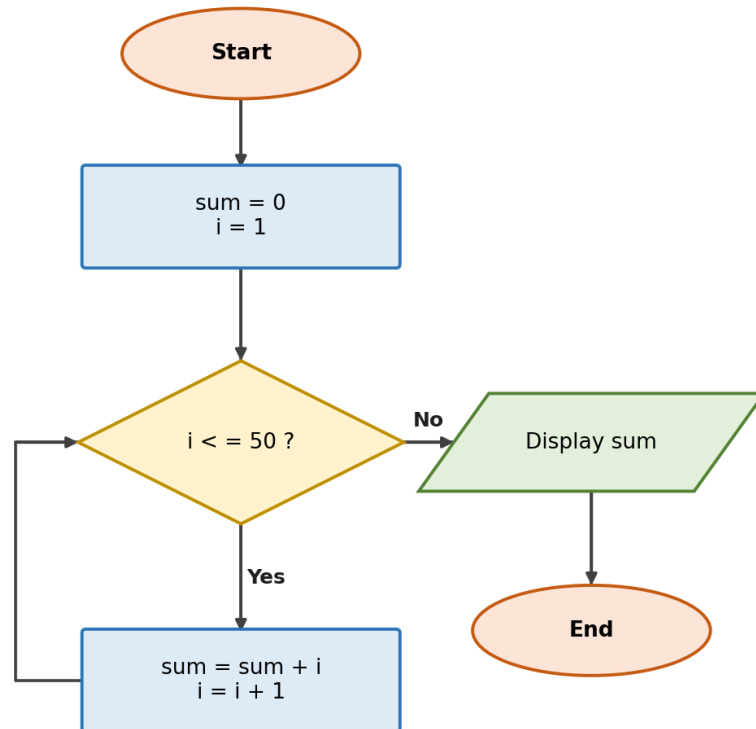
Question 11

Flowchart of multiplication table for a given number N.



Question 12

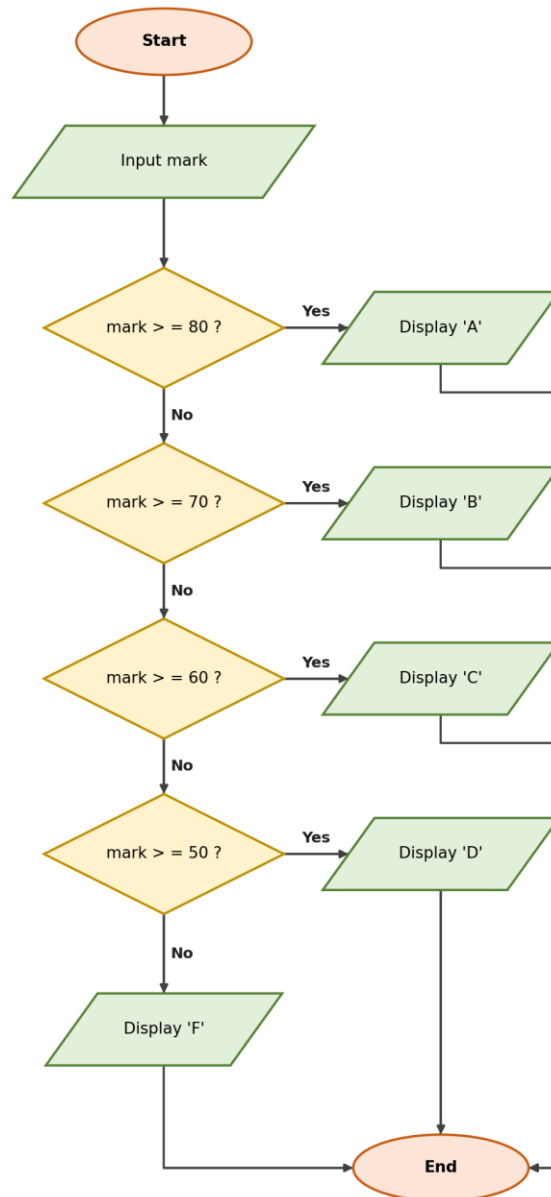
Draw a flowchart to find and display the sum of first 50 natural numbers.



Question 13

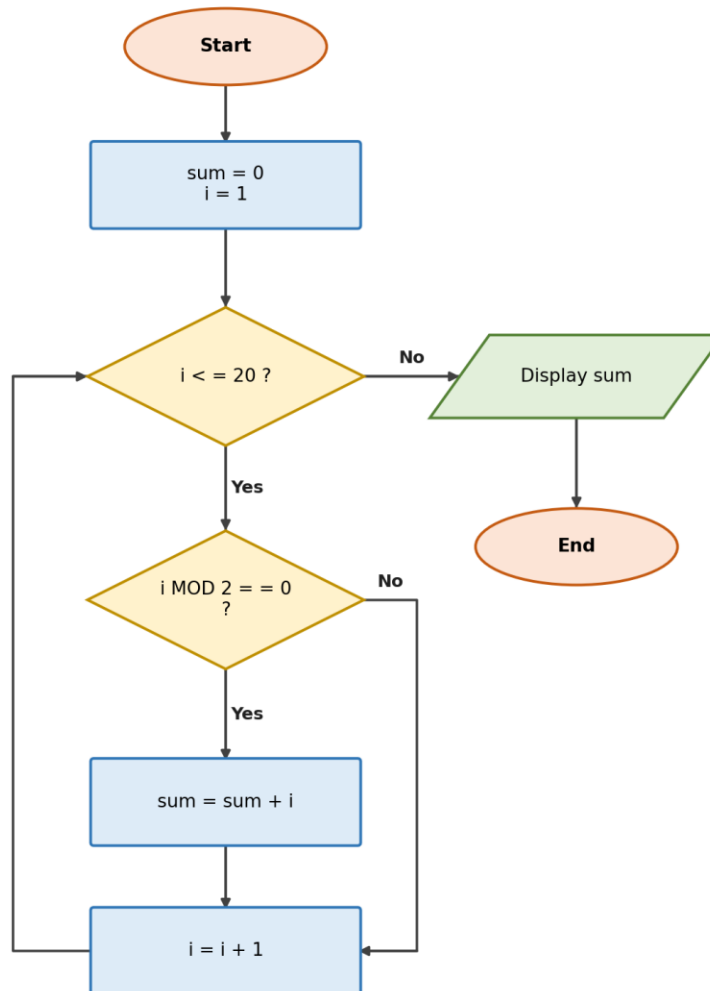
Draw a flow to chart to display Grade of input mark.

A	80 and over
B	70 to 79
C	60 to 69
D	50 to 59
F	Less than 50



Question 14

Draw a flowchart to find the sums of all the even numbers between 1 and 20 inclusive and then displays the sum.



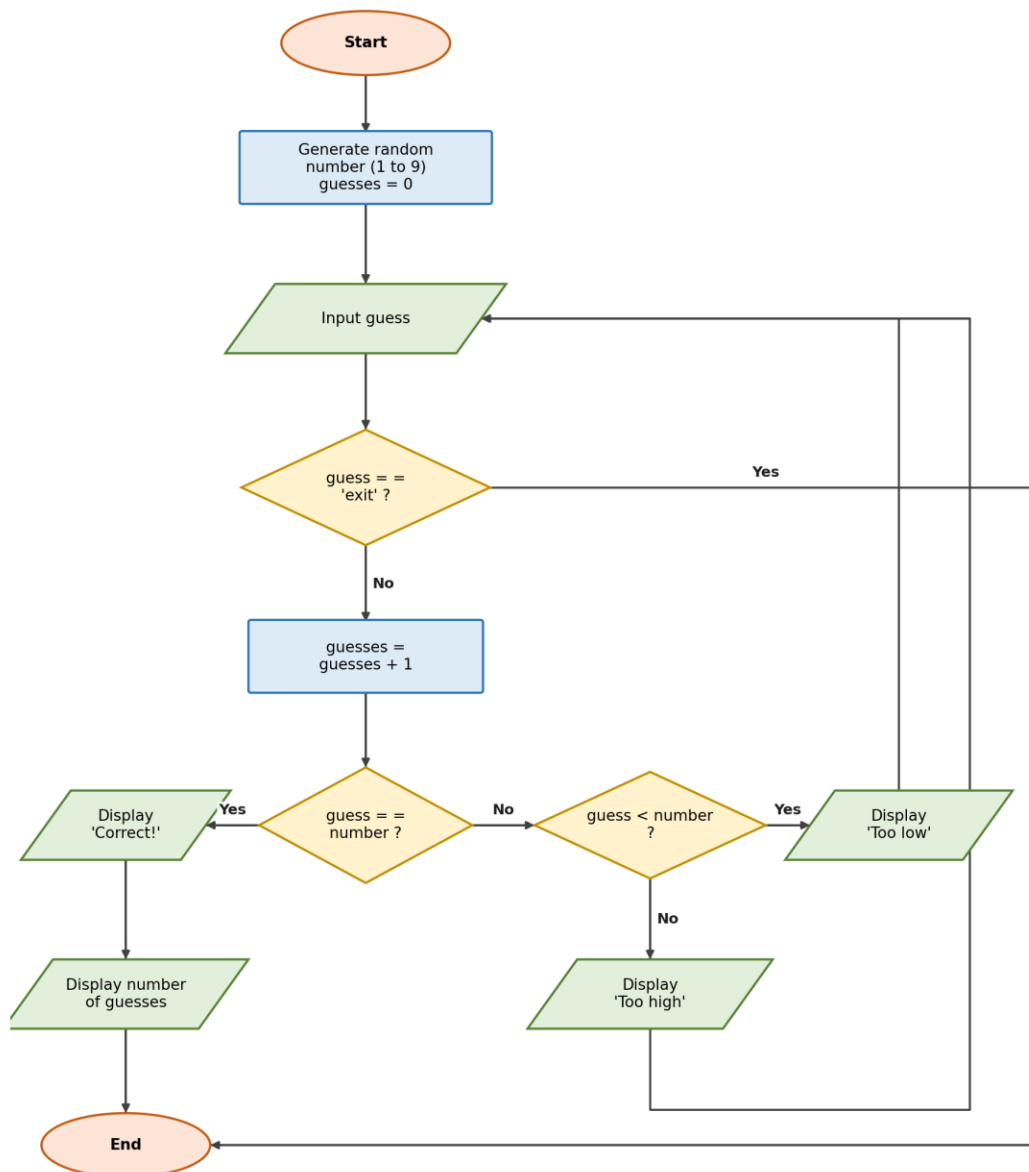
Question 15

Generate a random number between 1 and 9 (including 1 and 9). Ask the user to guess the number, then tell them whether they guessed too low, too high, or exactly right.

Hint: remember to use the user input lessons from the very first exercise.

Extras: keep the game going until the user types “exit”. Keep track of how many guesses the user has taken, and when the game ends, print this out.

Number-guessing game (with extras)



Draw a flowchart for computing factorial N ($N!$).

Factorial of N

