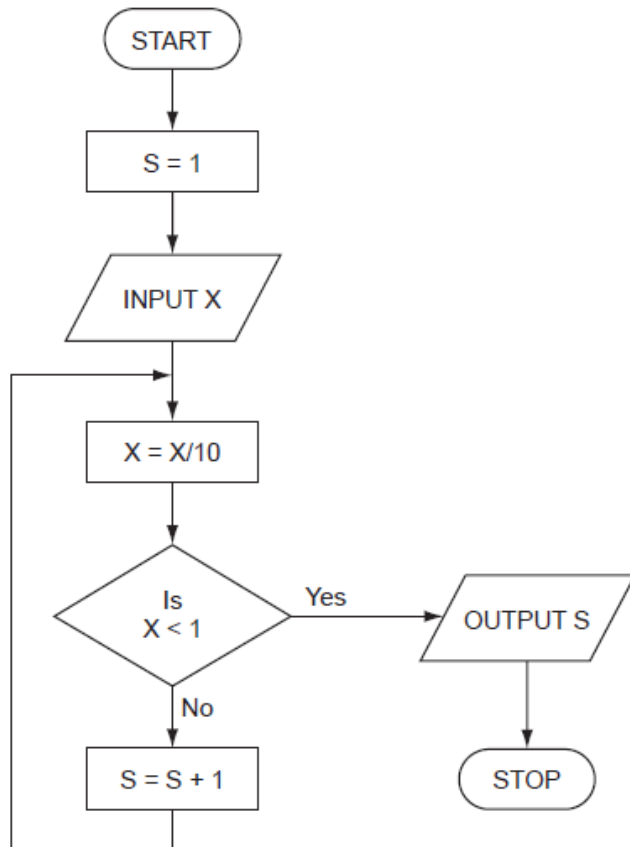


Trace Table

A tabular method of recording the expected values of variables as test data are processed by a program.

Example 1:



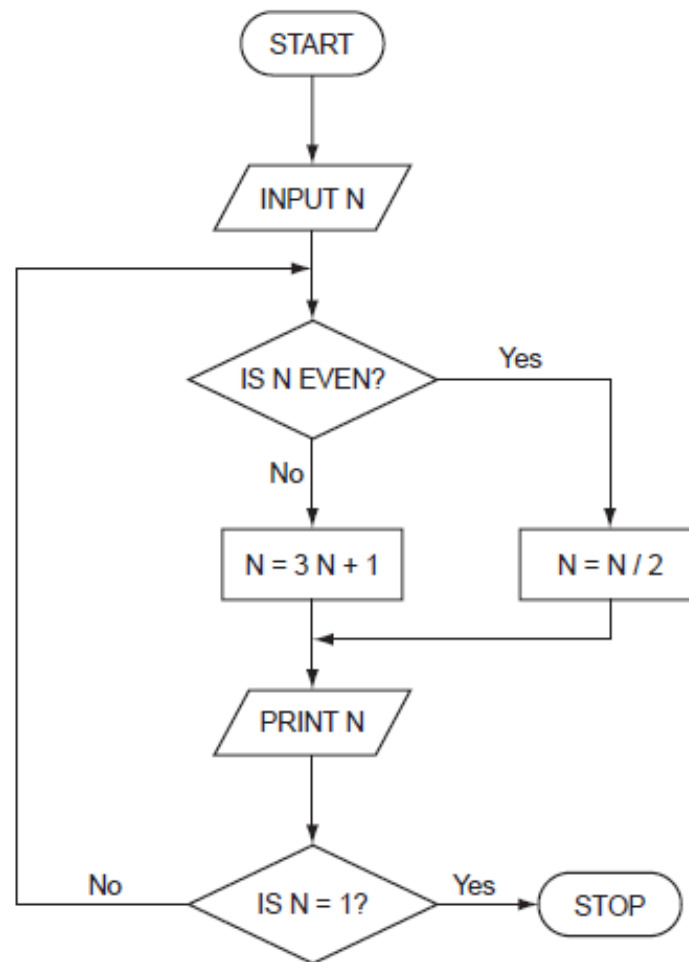
Complete the following table showing the expected output from the flowchart for the three sets of input data:

INPUT X	OUTPUT S
48	
9170	
- 800	

Solution (Example 1):



Example 2:



Trace the flow chart using the numbers 2 and 3. Write down each of the values of N in the order that they are printed out.

(a) 2

(b) 3

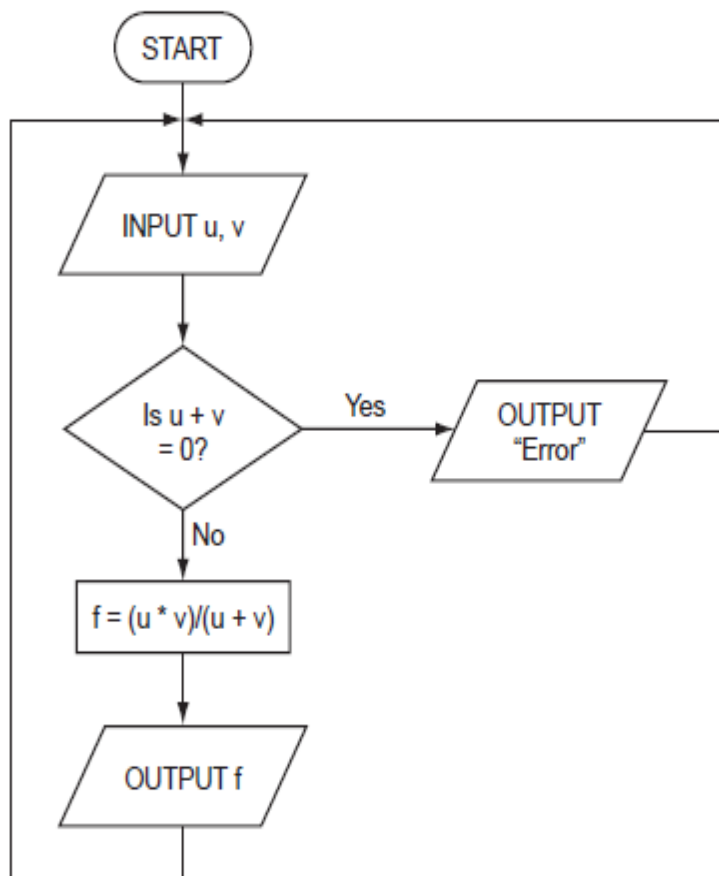
(a) 1

(b) $\overleftarrow{10, 5,}$
one mark

$\overleftarrow{16, 8, 4, 2, 1}$
one mark

Example 3:

The following flowchart inputs **two** numbers, carries out a calculation and then outputs the result.



Complete the following table for the **three** sets of input data.

INPUT		OUTPUT
u	v	
5	5	
6	-6	
12	4	

Solution (Example 3)

2.5

Error

3

Example 4:

The flowchart inputs the size of a number of car engines; a value of -1 stops the input.

This information is output: *average engine size* and *number of engines with size > 1.5*

