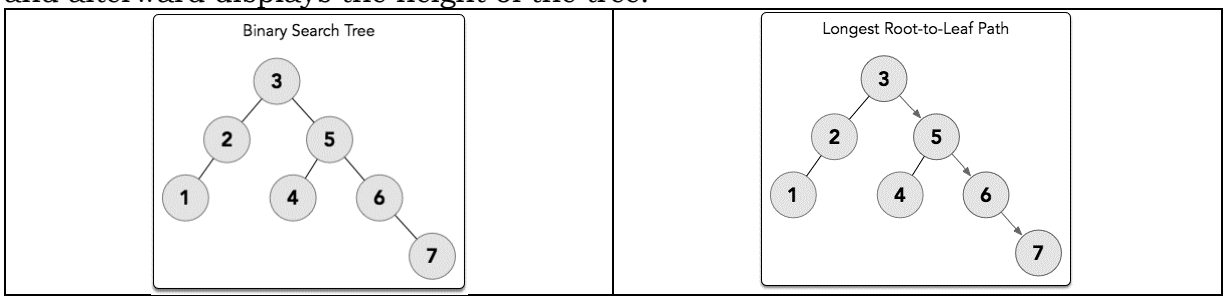
QUESTION 3 10 marks

The height of a Binary Search Tree is the number of edges between the tree's root and its furthest leaf. Write a program that inserts integer values into a Binary Search tree and afterward displays the height of the tree.



In the above diagram, there are 4 nodes in the longest root-to-leaf path that are connected by 3 edges, meaning our BST's $height = 3$. Thus, we print 3 as our answer.

Input Description:

The first line contains an integer, n, denoting the number of nodes in the tree. Each of the n subsequent lines contains an integer, $data$, denoting the value of an element that must be added to the BST.

SAMPLE INPUT	**SAMPLE OUTPUT**
7 3 5 2 1 4 6 7	3