import java.util.\*;

import java.io.\*;

class Node{

Node left,right;

int data;

Node(int data){

this.data=data;

left=right=null;

}

}

class Solution{

public static int getHeight(Node root){

//Write your code here

int count=0;

if(root==null)

{

return -1;

}

int lDepth=getHeight(root.left);

int rDepth=getHeight(root.right);

if(lDepth>rDepth)

{

count=(lDepth+1);

}

else

{

count=(rDepth+1);

}

return count;

}

public static Node insert(Node root,int data){

if(root==null){

return new Node(data);

}

else{

Node cur;

if(data<=root.data){

cur=insert(root.left,data);

root.left=cur;

}

else{

cur=insert(root.right,data);

root.right=cur;

}

return root;

}

}

public static void main(String args[]){

Scanner sc=new Scanner(System.in);

int T=sc.nextInt();

Node root=null;

while(T-->0){

int data=sc.nextInt();

root=insert(root,data);

}

int height=getHeight(root);

System.out.println(height);

}

}