#include <iostream>

using namespace std;

class node{

public:

int data;

node \*left;

node \*right;

node(int d){

data=d;

left=NULL;

right=NULL;

}

};

node\* buildTree(){

int d;

cin>>d;

if(d==-1)

return NULL;

node \*root=new node(d);

root->left=buildTree();

root->right=buildTree();

return root;

}

void print(node \*root){

if(root==NULL)

return;

cout<<root->data<<" ";

print(root->left);

print(root->right);

}

int count(node \*root){

if(root==NULL)

return 0;

return 1+count(root->left)+count(root->right);

}

int sum(node \*root){

if(root==NULL)

return 0;

return root->data+sum(root->left)+sum(root->right);

}

int main() {

node \*root=buildTree();

print(root);

cout<<"\n"<<count(root); //count the number of nodes

cout<<"\n"<<sum(root); //sum of all the nodes

}

Input-

8 16 6 -1 -1 4 -1 -1 3 2 -1 -1 -1

Output-

8 16 6 4 3 2

6

39