#include <iostream>

using namespace std;

int main()

{

int arr[100009];

int i=0,j;

int q;

cin>>q;

while(q--)

{

int ch;

cin>>ch;

switch(ch)

{

case 1: i++;

int num;

cin>>num;

arr[i]=num;

j=i;

while(j>1&&arr[j]<arr[j/2])

{

swap(arr[j],arr[j/2]);

j=j/2;

};break;

/\* for(int r=1;r<=i;r++)

{cout<<arr[r]<<" ";}

cout<<"\n";break;\*/

case 2: int pos;

cin>>num;

for(int p=1;p<=i;p++)

{

if(arr[p]==num)

{ pos=p;break;}

}

while(pos<=i)

{ int left=2\*pos,right=2\*pos+1;

if(left<=i&&right<=i)

{

if(arr[left]<arr[right])

{

arr[pos]=arr[left];

pos=left;

}

else

{

arr[pos]=arr[right];

pos=right;

}

}

else if(left<=i&&right>i)

{

arr[pos]=arr[left];

pos=left;

}

else

{

for(int k=pos;k<i;k++)

{arr[k]=arr[k+1];}

i--;

break;

}

} ;

/\*for(int r=1;r<=i;r++)

{cout<<arr[r]<<" ";}

cout<<"\n";\*/

break;

case 3: cout<<arr[1]<<"\n";break;

}

}

return(0);

}