#include<iostream>

#include<bits/stdc++.h>

using namespace std;

int main(){

int n,i,m;

cout<<"How Much Elements are in Your Heap: ";

cin>>n;

long H[n],Delete;

cout<<"Enter All Elements of Heap in Sequential Representation:"<<endl;

for(i=1;i<=n;i++){

cin>>H[i];

}

cout<<endl;

cout<<"Before Deletion:"<<endl;

for(i=1;i<=n;i++){

cout<<H[i]<<" ";

}

cout<<endl<<endl;

cout<<"What will you Delete Now: ";

cin>>Delete;

cout<<endl;

for(i=1;i<=n;i++)if(H[i]==Delete){

m=i;

H[i]=H[n];

}

for(i=m;i<n/2;i){

if(H[2\*i]>H[(2\*i)+1]&&H[2\*i]>H[i]){

swap(H[i],H[2\*i]);

i=2\*i;

cout<<" B "<<i;

}

else if(H[2\*i]<H[(2\*i)+1]&&H[(2\*i)+1]>H[i]){

swap(H[i],H[(2\*i)+1]);

i=(2\*i)+1;

}

else break;

}

n=n-1;

cout<<"After Deletion:"<<endl;

for(i=1;i<=n;i++){

cout<<H[i]<<" ";

}

cout<<endl;

return 0;

}