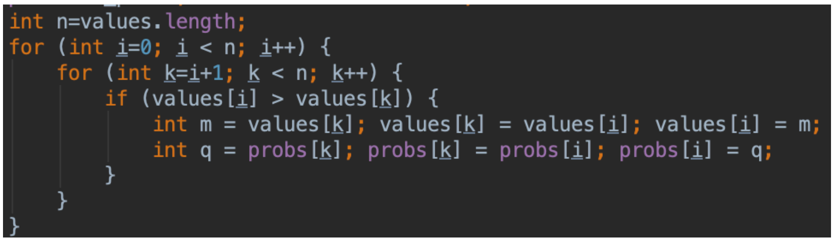
Dynamic programming contains a lot of problems. This week I still practice this type of the problem. This problem is about a binary search tree.

There are some special properties of BST which I need to understand firstly. The important thing of solving this problem is that I need to know every node has the only value and the value at a given node must be greater than the value at every node in its left subtree and less than the value at every node in its right subtree in a BST.

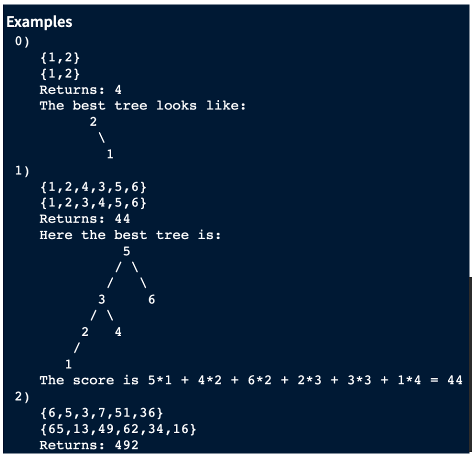
Meanwhile, the top node(root) has depth is 0 and every node has depth 1 higher than its parent.

First of all, I use the For loop to get the access, the statement is i=a; i<=b; i++. Then, I use the if-else if statement and a For Loop to get the best access score. What's more, using the Integer. MAX_VALUE to get the largest value. For getting the bestScore, I need to use two For Loop and if statement.
Like this:



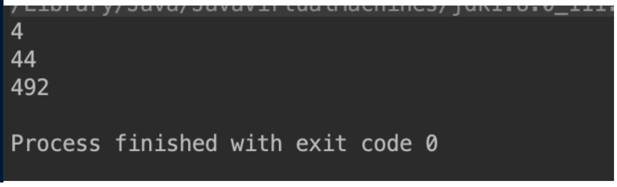
```
int n=values.length;
for (int i=0; i < n; i++) {
    for (int k=i+1; k < n; k++) {
        if (values[i] > values[k]) {
            int m = values[k]; values[k] = values[i]; values[i] = m;
            int q = probs[k]; probs[k] = probs[i]; probs[i] = q;
        }
    }
}
```

Class: SkewTree
Test passed.
Since I can't upload it to web submission, the example is shown below and the result looks like this after I run it.



Examples

```
0)
    {1,2}
    {1,2}
    Returns: 4
    The best tree looks like:
          2
           \
            1
1)
    {1,2,4,3,5,6}
    {1,2,3,4,5,6}
    Returns: 44
    Here the best tree is:
              5
             / \
            /   \
           3     6
          / \
         2   4
        /
       1
    The score is 5*1 + 4*2 + 6*2 + 2*3 + 3*3 + 1*4 = 44
2)
    {6,5,3,7,51,36}
    {65,13,49,62,34,16}
    Returns: 492
```



```
/Library/Java/JavaVirtualMachines/jdk1.8.0_111.
4
44
492

Process finished with exit code 0
```

The challenge of this problem is to figure out when to add one and when to subtract one. To make sure the thinking of this problem in my mind is clear so that I can solve it easier.

https://community.topcoder.com/stat?c=problem_statement&pm=1641