i. the optimal cost of a subtree starting at node (i,j) is the sum of min cost of left and right subtrees plus the sum of frequencies i to j.

ii. $mincost(i,j) = \sum_{x=i}^{j} P(x) + \min_{r=i}^{j} \left[cost(i, r-1) + cost(r+1, j) \right]$

iii. pseudo code:

```
for i = 1 → n
    c(i,i) = P(i)
for L = 2 → n
    for i = 0 → n - L + 1
        j = i + L - 1
        for r = i → j
            left = if r > i
                      then c(i, r-1)
                      else 0
            right = if r < j
                       then c(r+1, j)
                       else 0
            cost = left + right + Σ_{x=i}^{j} P(x)
            if cost < c(i,j)
                cost(i, j) = c
```