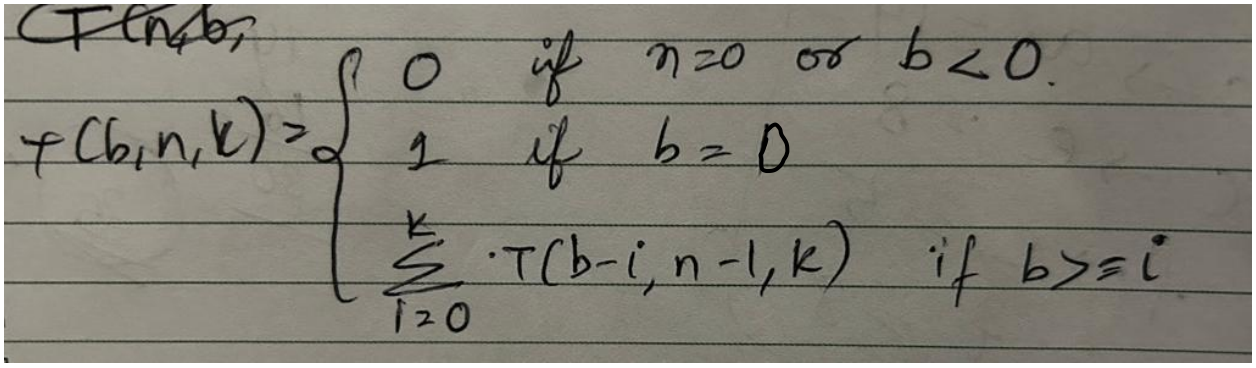
1. The recurrence relation is as follows



2. The base cases are -
If number of stacks (n) is 0 or number of robots(b) less than 0, there are no ways to arrange, hence return 0
If the number of robots (b) is 0, return 1 , which is an empty set.

3. Time complexity = O(b*n*k), Space Complexity = O(b,n,k)

4. Pseudocode for iterative approach -
Input: b,n,k
Algorithm waysToDistribute:

```
Create a matrix with zeroes of size b * n
mat=[][]
for i = 0 to n do
        mat[i][0]=1
end
for i = 1 to n do
        For j = 1 to b do
                if k ==1 then
                        mat[i][j] = mat[i-1][j-1]
                end
                else if j == k then
                        mat[i][j] = mat[i+j-1][j]
                end
                else if j>=k then
                        mat[i][j] = mat[i+j-2][j-1] - mat[i-2][j-2]
                end
        end
end
return mat[n][b]
```

5. Time complexity for iterative = O(b*n*k), Space is size of matrix, O(b*n)