

Write Up Project 1
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FallingGlass.java writeup

(a): first set up the base cases for the algorithm where when we have less than 1 floors or if we have 1 sheet left. Then create a value to represent the largest value possible comparing this with the biggest value between the result of 1 less floor and sheet and the result of an x number of floors less and returning the least value found from all this.

(d): 64 subproblems

(e): mn^2 problems

(f): you would set up a 2d array the size of the number of floors + 1 and the number of sheets + 1, and set up the base cases in the array filling in the values and through the algorithm checking to see if the value has been found for that value pair.

RodCutting.Java

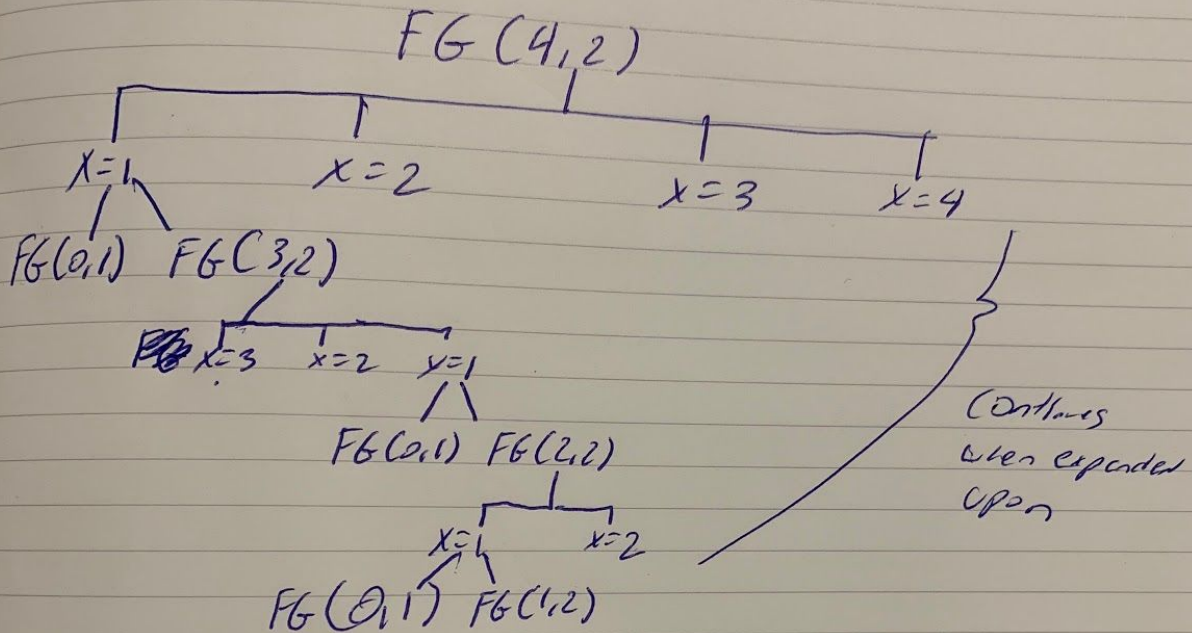
(b)

In the greedy algorithm the algorithm for a rod size n would continuously cut pieces off that correspond to [theListOfPrices - n] in descending order until the size is 0.

So for example say we have a list of values {1,3,4,5,25} and a rod of size 5 then the first size cut is [5-1] for a value of 5 and then with the remainder size gets a value of 1 for a total of 6. Where the best solution is just to leave the rod intact for a value of 25, that could be found using a dynamic algorithm.

Falling glass Java

Part b (simplified)



Rod cutting

(a) Recursive tree

