Fractional Knapsack

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Knapsack (P, W, m)

1. Sort the arrays P & W in decreasing order of p_i/w_i O(nlogn)
2. Let weights = 0
3. Let X be an array of size P. length
4. for i = 1 to X. length
5. X[i] = 0
6. for i = 1 to X. length
7. {
8. if ((weights + W[i]) <= m)
9. X[i] = 1
10. weights+=W[i]
11. else {
12. X[i] = (m - weights)/W[i]
13. break
14. }
15. }
16. return X
17. }

18. O(nlogn)