

# Algorithmic Operation Research

## Homework 6 - Bonus

Instructor: Anna Karasoulou

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**Exercise 1.** Define the 0-1 knapsack problem.

**Exercise 2.** Give a dynamic programming solution to the 0-1 knapsack problem.

**Exercise 3.** Give real world applications of knapsack problem.

**Exercise 4.** Define the Subset sum problem and give a dynamic programming solution for it. Write down the difference between the subset sum and the knapsack problem.