

Module - 25.5: Practice Problems

1. Write code to solve the problem [Partition Equal Subset Sum](#) using
 - a. Tabulation
 - b. Memoization

2. Write code to solve the problem [Target Sum](#) using
 - a. Tabulation
 - b. Memoization

3. **Unbounded Knapsack:** We solved the problem [0-1 knapsack](#) problem in our theory module where we were only allowed to pick **at most** one item of each type. Let's remove this condition. Now you are allowed to pick an item **any number of times**.

For example, for the first sample input in the linked problem, we can maximise our sum if we take the second element twice, getting a total sum of **100**.

Now,

- a. Write the DP state
- b. Write the recursive equations
- c. Write the base case
- d. Explain your **time** and **space** complexity
- e. Write code to solve the problem using both **tabulation** and **memoization** methods.