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Running Time Analysis

Brute Force Maximum Subarray Sum

- **Algorithm:** Brute Force
- **Time Complexity:** $O(n3)O(n^3)O(n3)$
  - **Explanation:** The algorithm uses three nested loops: the first two to select subarrays, and the third to calculate the sum of each subarray. Each loop runs from 0 to nnn.

Exhaustive Knapsack Problem

- **Algorithm:** Exhaustive Search
- **Time Complexity:** $O(2n)O(2^n)O(2n)$
  - **Explanation:** This algorithm recursively considers each item in the knapsack problem, either including or excluding it. This results in $2n2^n2n$ possible combinations.