

## Session 11

# Strategy 1: Brute Force

---

### Lecture Summary

Focus on identifying and generating the solution domain. Start with assignment problem since its domain is easiest to identify.

### Exhaustive Search

1. Introduction to exhaustive search: the assignment problem
2. Knapsack problem
3. Traveling salesman problem
4. Understanding exhaustive search: finding an *element* that satisfies a *property* from a *domain* that grows exponentially with problem size
5. Brute force solutions based on exhaustive search vs. previous brute force solutions

---

### Session Exercise

 Exercise 3.4 • 1, 4, 8 ✖ 6, 10.b

---

### Reading List

 3.4

---

### Keywords

[Solution] Domain, exhaustive, restricted [problem], [solution] space