

IEOR E4601: Dynamic Pricing and Revenue Management  
Lecture 7: Assortment optimization under MNL

## 1 Study Guide

By the end of this lecture, you should be able to

1. State the assortment optimization problem and explain its connection to price optimization.
2. Derive the alternative formulation that leads to the binary search algorithm.
3. Perform the binary search algorithm.
4. Derive the alternative formulation that leads to the direct search algorithm.
5. Perform the direct search algorithm.

## 2 Recall of MNL and problem statement

Discussion: How can assortment optimization be considered as a special case of price optimization?

### 3 Binary search algorithm

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## 4 Direct Algorithm

Video: Commerce Anywhere: Making The Right Assortment Decisions (Category Management)  
<https://www.youtube.com/watch?v=XggKKhU3tXE>.