

Exploring Lagrangian Optimization

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Section 1: The Extreme Value Theorem in \mathbb{R}^2

Chapter 1

Hungry Joe

Chapter 2

Utilmaxxing

Section 2: The Extreme Value Theorem in \mathbb{R}^3

Chapter 3

Hangry Joe

Chapter 4

He's a Nerd!

Section 3: The Method of Lagrange Multipliers

Chapter 5

Poor Joe

Chapter 6

Joe's Math

Chapter 7

A Brief Generalization

Section 4: The Cobb-Douglas Production Function

Chapter 8

Rich Joe

Chapter 9

Business Joe

Chapter 10

Another Brief Generalization

**Section 5: The Stuff I Thought I Should Put at the End
but Wasn't Sure if It Was Necessary**

Chapter 11

Concluding Remarks