

## Introduction to Computer Science E14 – Discussion Sections – Week 39

- Page 143: Problems 1, 2, 4.
- Pages 147–150: Problems 3, 25, 26, 35, 36, 38, 40, 43.
- Consider the problem of walking down a narrow aisle in a grocery store with a grocery cart. Suppose the aisle is not wide enough for two grocery carts to pass each other. A deadlock can occur if two people try to go down the aisle from opposite directions and meet each other. Explain how the three conditions for deadlock are met.

Describe an algorithm for this which avoids deadlock, but allows more than one person to be going in the same direction at the same time, following each other. Which of the three conditions does your algorithm avoid?