

Homework 3

Math 262

due 5:00pm on Friday, September 4

Write your solutions to the following problems clearly and neatly. Make sure to explain your reasoning and provide mathematical details that support your answers. For a few tips on writing solutions, see [this helpful guide for mathematical writing](#).

You may write or type your solutions electronically, or write them on paper and scan or photograph them. Upload a single file containing your solutions to the [Homework 3](#) assignment on Moodle.

Book Problems

- Section 1.3 #49 (page 35)
- Section 1.4 #51, 54, 59, 60, 71 (pages 46–52)

Additional Problem

Renata flies frequently and likes to upgrade her seat to first class. She has determined that if she checks in for her flight at least 6 hours early, the probability that she will get the upgrade is 0.8; otherwise the probability of getting the upgrade is 0.3. With her busy schedule, Renata checks in at least 6 hours early only 40% of the time. What is the probability that Renata will get a first class upgrade on a randomly selected flight?