

MATH 470. Fall 2022.

Homework #11. Due: Nov 29, 11:10am. No late homework will be accepted.

Please write down your solutions clearly or type your solutions. It can be considered incorrect if it is hard to read. Collaboration is allowed, but everyone must write down and submit his/her solutions in his/her own words. Please submit your work to Gradescope.

All the questions mentioned below are in the Exercise part of the corresponding sections in the textbook.

- Required submission questions:

- Section 5.1: 5.2(a)(b)(c), 5.3(c)(d)(e), 5.4(b)(c)(d), 5.7
- Section 5.3: 5.21(a)(b)(c)(e), 5.24, 5.27(a)(c)

(Instruction for 5.27(a): You should answer the question about 1000 curtains as well.

Instruction for 5.27(c): This question might be confusing because “Dan sticks” and “Dan switches” are not events. What $\Pr(\text{Dan wins a car} \mid \text{Dan sticks})$ means is the probability that Dan wins if he chooses to stick with his first choice. Similarly for $\Pr(\text{Dan wins a car} \mid \text{Dan switches})$.)

- Suggested practice:

- Section 5.1: 5.1, 5.2(d), 5.5, 5.8
- Section 5.3: 5.20, 5.21(d)(f)