Part I (due at the beginning of class Friday, November 7, 2025)

Read the first part of Chapter 9, stopping on page 51 when you finish the sentence "The exact consistency conditions needed for preferences to be described by cardinal utilities are given in [Herstein and Milnor, 1953] or [Davis, 1983]."

Remember that what you turn in for Part I should have 3 parts, as mentioned in the syllabus:

- (a) Your responses to the reading questions below.
- (b) Your own questions/comments on the reading.
- (c) The amount of time you spent on Part I (including the time spent reading).

Reading Questions

- 1. Give an example of a game that has undergone an order preserving transformation from the game at the top of page 50 (so it still has all the same preferences, dominance, saddle points, etc., but different payoffs than those listed in the book's game).
- 2. What do you think the author means by "meaningful" in the discussion at the bottom of page 50?

Part II: Exercises (prepare for class Monday, November 10, 2025)

- 1. Exercise 7.2—feel free to be less energetic
- 2. Exercise 7.5

Part III: Homework Problems (due Wednesday, November 12 at the beginning of class)

1. Solve the matrix game

$$\begin{array}{c|cccc} & & & & & & & \\ & & Colin \\ \hline A & A & B & C \\ \hline A & d & e & c \\ Rose & B & a & f & e \\ C & b & d & c \\ \end{array}$$

where a < b < c < d < e < f. as the row player.