Part I (due at the beginning of class Monday, November 24, 2025)

Refresh your reading of Chapter 10 so you're ready to discuss it in class.

Part II: Exercises (prepare for class Monday, November 24, 2025)

1. (Apparently we'll do this one Monday.) Explain why each of the four decision methods described in Chapter 10 satisfy each of the first three axioms.
2. Exercise 10.1

Part III: Homework Problems (due Wednesday, December 3 at the beginning of class)

Suppose a matrix for a zero-sum game is square and symmetric along the off-diagonal (the diagonal that starts in the upper right corner of the matrix and goes to the lower left corner) and has a mixed strategy solution for Rose and Colin. True or false: Rose's optimal mixed strategy is the same numbers as Colin's optimal mixed strategy but in reverse order. For example, if Rose's optimal mixed strategy for such a 3×3 game is $\left(\frac{1}{4}, \frac{5}{12}, \frac{1}{3}\right)$, then Colin's optimal mixed strategy is $\left(\frac{1}{3}, \frac{5}{12}, \frac{1}{4}\right)$. Explore this question by considering it for 2×2 games and then 3×3 games. If true, prove (in whatever dimension you can: 2, 3, or n); if false, give an explained counterexample. (Credit to Josiah for his conjecture that led to this question.)