

Exercises for L1 and L2:

Consider the problem faced by the former United States Football League (USFL) in deciding whether to play in the fall or the spring. The fall market is the biggest, and consequently, the USFL's ideal would be to have a monopoly in the fall and have the National Football League (NFL) move to the spring. But, if the NFL remains in the fall, the USFL does better to take a monopoly in the spring. The worst possible outcome for the USFL would be if both leagues moved to a spring schedule.

The NFL, even with its stronger reputation, still prefers that the USFL play during its off season. However, its reputation is strong enough and the fall market is sufficiently bigger than the spring that the NFL prefers to go head-to-head against the USFL in the fall than take the spring by itself.

To make these ideas more precise, suppose that there are 100 million people who would watch football in the fall, and 50 million in the spring. If one league has a monopoly during a season, it gets the entire market for that season. If the two go head-to-head during a season, the NFL gets a 70 percent share and the USFL a 30 percent share during that season; the potential viewers for the other season go unserved.

- a) Construct a Normal-form game (in matrix form) that depicts the strategic situation of both leagues
- b) What will the leagues do, if both act rationally?