

Pedagogical Function

The main purpose of this exercise is to show how expected value in the first exercise can be a good way for deciding the ticket price (and that its result is intuitive) while in the second exercise (the St. Petersburg paradox) there is a strong disconnection between human intuition for expected value and the mathematical notion of expected value. The exercise calculus is quite easy (just the notion of log function, the convergence of a series is required and expected value). I have not addressed the topic of the utility function and Bernoulli's solution except in the comment file. The student is supposed to make the exercise before and then, read the Comment file that explains the main solutions and concepts behind it.

The topic is very interesting and maybe is well suitable to be discussed in class