1. Consider the following game (note that Player 2 starts the game, but the payoffs are given in the order – from top to bottom – Player 1, Player 2, Player 3).

(a) Write all the strategies of Player 1.
(b) Write all the strategies of Player 2.
(c) How many proper subgames does the game have?
(d) Explain why (R,E,L) is not a Nash equilibrium.
(e) Find all the pure-strategy subgame-perfect equilibria.

2. Ken suggests the following game to Gene: “You choose either the letter a or the letter i, and I, independently, choose one of the following letters: f, t, or x. If the two chosen letters form a word in the English language then I will pay you $1, plus a $3 bonus if the word is a noun or pronoun. If the chosen letters don’t form a word, you pay me $2.” Should Gene accept to play this game, assuming they are both risk-neutral?

[If you don’t know whether a combination of letters forms a word in the English language, don’t e-mail me; ask Google or Alexa or Siri or any of the other wonders of today’s world!]

Page 1 of 1