

ECON 253/HW 2

Due: October 01, 2019 by 12.30 noon the latest

- Late submissions will receive a grade of zero.
- The aim of assigning homework is to increase your incentive to study and not to test you. In each question, if you attempt to answer it fully, you will get 1 point; if you do not answer it fully, you will receive no points.
- You may use a computer/calculator to answer HW questions. You will still need to write down your full answer (or copy it from your computer screen and paste it). Keep in mind that in exams, computers/calculators/cell phones will not be allowed.

(1pt) Question 1.

Before books aimed at preschool children are marketed, reactions are obtained from a panel of preschool children. These reactions are categorized as favorable, neutral, or unfavorable. Subsequently, book sales are categorized as high, moderate, or low, according to the norms of this market. Similar panels have evaluated 1,000 books in the past. The accompanying table shows their reactions and the resulting market performance of the books.

	Panel Reaction		
Sales	Favorable	Neutral	Unfavorable
High	173	101	61
Moderate	88	211	70
Low	42	113	141

Define the events as H (high), M (moderate), L (low), F (favorable), N (neutral), and U (unfavorable).

- a) If the panel reaction is favorable, what is the probability that sales will be high?
- b) If the panel reaction is unfavorable, what is the probability that sales will be low?
- c) If the panel reaction is neutral or favorable, what is the probability that sales will be low?
- d) If sales are low, what is the probability that the panel reaction was neutral or favorable?