

## Homework Solutions

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#### Exercise 8

- (a) The response variable is the payment status.
- (b) The explanatory variable is the source of the payment.
- (c) The levels are “private insurance,” “government program,” and “other.”
- (d) Observational. The values of the explanatory variable were not manipulated for the subjects.
- (e)
  - (i) It is a statistic. It is based on the sample, not the entire population.
  - (ii) Stratified sampling.
  - (iii) Use `randInt(1,120)`. The first 5 distinct random integers are 38, 114, 56, 85, and 101.
- (f) The population is all hospital discharge records (not just from the last two months) from that hospital.
- (g) The sample is the 2000 records that were studied.