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Exercise: Hypothesis testing versus estimation

(4/4 points)

For each one of the following situations, state whether it corresponds to a hypothesis testing or estimation problem.

A grocery store was robbed yesterday morning. The police have determined that the robber was one of the five customers who visited a nearby bank earlier that morning. For those customers, the police know their identity as well as the time that they visited the bank. The police want to:

(a) Guess the time at which the grocery store was robbed.

Estimation ✔ **Answer:** Estimation

(b) Guess the identity of the robber.

Hypothesis testing ✔ **Answer:** Hypothesis testing

(c) Guess the gender of the robber.

Hypothesis testing ✔ **Answer:** Hypothesis testing

(d) Guess the weight of the robber.

Estimation ✔ **Answer:** Estimation

Answer:
In parts (a) and (d), we are trying to guess a numerical quantity, and we want a precise estimate, without a hope of guessing that quantity with perfect accuracy. These are estimation problems.

In parts (b) and (c), we are trying to choose between a small number of alternatives, so these are hypothesis testing problems.

You have used 1 of 1 submissions


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