1 point

1.

Fill in the blank: Under a **0/1 loss function**, the summary statistic that minimizes the posterior expected loss is the _____ of the posterior.

- Mode
- Median
- Mean

---

1 point

2.

True or False: If the posterior distribution is normally distributed, the estimate that minimizes posterior expected loss is the same, regardless of whether the loss function is 0/1, linear, or quadratic.

- True
- False

---

1 point

3.

Which of the following statements is **false**?

- A Bayes factor of less than .01 suggests that the evidence in favor of one of the hypotheses is barely worth mentioning.

- The Bayes factor represents the ratio of the marginal likelihoods of observing the data under the two hypotheses.
- The Bayes factor is not sensitive to the choice of prior distribution on hypotheses.
- A Bayes factor of greater than 100 suggests strong evidence in favor of one of the hypotheses.

Week 3 Practice Quiz

Practice Quiz, 4 questions

1 point

4.

Let's revisit the snack example introduced in video "Comparing two independent means". Recall that 44 volunteers were assigned to a treatment and control group, with 22 in each group. Consumption of cookies (in g) after lunch was measured for each of the volunteers. In the treatment group, mean consumption was 52.1 with standard deviation 45.1. In the control group, mean consumption was 27.1 with standard deviation 26.4.

Which of the following assumptions used in the analysis of the data is most questionable?

- Cookie consumption is independent within groups.
- Cookie consumption is independent between groups.
- Cookie consumption is normally distributed.
- The variance differs between groups.

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