Exam Week 3
Quiz, 5 questions

5/5 points (100%)

✔ ## Congratulations! You passed!

| Next Item |

✓ **1 / 1 points**

1.

We perform 1000 studies. Omniscient Jones knows that in 400 of these studies we examine a null effect, and in 600 of these studies we examine a true effect. We use an alpha level of 0.05, or 5%. What is our Type 1 error rate over these 1000 studies?

✓ **1 / 1 points**

2.

Go to http://shinyapps.org/apps/PPV/. Imagine a research area where a-priori the % of true hypotheses is at a very low 10%. Assume the alpha level is well controlled and 0.05, and that the power is only 50%. There is no p-hacking. What is the probability that a significant finding is a true effect?

✓ **1 / 1 points**

3.

You plan to do a new study. A-priori you think it is 80% likely that H1 is true. You use an alpha level of 0.05 and plan for (and succeed in achieving) 80% power. What is the probability that you will observe a true positive?

✓ **1 / 1 points**

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4.

As you collect data from 100 participants, and analyze the data after 50 and 100 participants, using an alpha level of 0.05 for each analysis, which statement is true?

✓   1 / 1
      points

5.

Open the OptionalStoppingSim.R file. Run the simulation. Optional stopping can be observed by looking at the p-value distribution. Which statement is true?

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