

STAT157 HW 1

Jan 17, 2023

Due Tuesday, January 24 at 7pm

Logistics Setup

Expected completion time: 10 minutes

Install a time-tracking app as described in the “Predictions” section, and submit a screenshot or photo showing it has been installed.

Deliberate Practice

Expected completion time: 60 minutes

Go to <https://www.openphilanthropy.org/calibration> and sign in (either create an account or use Gmail/Facebook). Click “Home” and complete the following exercises in the app:

- Confidence intervals (level 80%) – at least 20 questions
- 20 questions each from two of the other categories (i.e., two out of PolitiFact, Correlations, City Populations, Math, and Trivia).

(Of course, feel free to answer more questions if you would like!)

At the end, go to the “Results” tab and take screenshots showing that you completed at least 20 questions in each category, as well as your calibration performance (the chart that appears below the results).

Write 1-2 sentences about what you learned from this exercise. For which categories were you most/least successful in being calibrated? Were your confidence intervals generally too big or too small?

Predictions

Expected completion time: 35 minutes

Register the following predictions. You can submit them by going to <https://docs.google.com/forms/d/1S-WxsZAJfTsEK-dYtmJuMK3zPXV24M4zk-MuRGDWmNo/edit> and by following the form's instructions.

0. Pick a website, application, or software of your choice. Predict how much time you will spend on it between 12:00am Tuesday January 24th and 11:59pm Sunday January 29th. You should track this **using a time-tracking app** such as Screen Time (if you have macOS Catalina or later), Rescue Time, Digital Wellbeing (Android), or any another tracker you prefer.¹

1. How many people will be in lecture at 11am on Wednesday, January 25th?

This will resolve based on a count conducted by the course staff.

2. How many dollars will the movie *Avatar: The Way of Water* gross in the US on the weekend of Jan 27-29?

This will resolve according to Box Office Mojo.

3. Will *Avatar: The Way of Water* be the highest-grossing movie in the US on the weekend of Jan 27-29?

This will also resolve according to Box Office Mojo.

For each question, submit a mean and inclusive 80% confidence interval (or a probability for question 3) as well as an explanation of your reasoning (1-2 paragraphs).

For questions 1-3, your prediction (but not the explanation) will appear on the public leaderboard. Question 0 will remain private and not count towards the leaderboard.

¹Note that some desktop apps record screen time even when an app is open in the background; you might want to be careful about this when making predictions or choosing the application.