

Full name \_\_\_\_\_ SUNet ID (the part before @stanford.edu) \_\_\_\_\_ Section (e.g., TUES 9:30) \_\_\_\_\_  
Please write legibly so the teaching team can log your attendance: if we can't read your name, we can't give you credit.

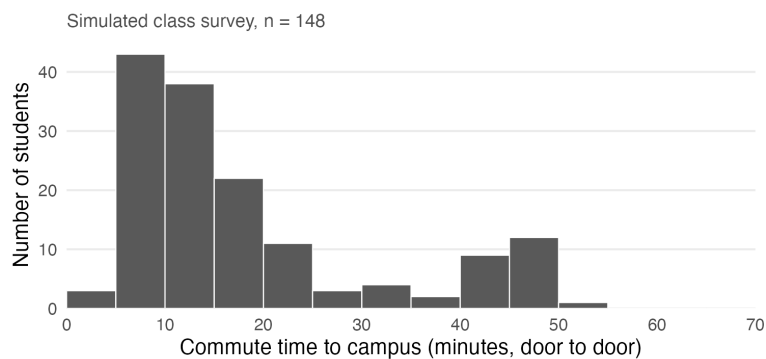
## PSYCH 10 • Fall 2026 • Worksheet for Lecture 3: Distributions & histograms

The questions on this worksheet connect to what we are covering in lecture today, so please reflect on the lecture as you formulate your responses. You are welcome to work through them with the people sitting next to you, and members of the teaching team will be walking around to help. You will receive credit for completion so long as you make a good-faith effort to engage with these questions. Please hand it in to a member of the teaching team before you leave class.

### Part 1 • The Challenger data

The table on the screen lists every shuttle launch before Challenger, with the temperature at launch and how much damage the O-rings showed afterward. The forecast for launch morning was 26–29°F. **Sketch the graph you would have drawn** to make the case for postponing. Label both axes.

### Part 2 • Reading a histogram



- a. Describe the **shape** of this distribution in one sentence (start with “roughly...”). Where is the bulk of the data?
- b. About how many students have a commute of **40–45 minutes**? How wide are the bins? Does the bar at 40 include a 40-minute commute or a 45-minute one? (If you can't tell from the graph, say so.)

a. \_\_\_\_\_

b. \_\_\_\_\_

Same 148 students. **If we redraw the histogram with 10-minute bins instead of 5, what will it look like?** Sketch it. Is the second bump still there?



### Part 3 • The second bump

Look again at the histogram. Besides the peak near 10–15 minutes, **there is a second bump around 45 minutes.**

- a.** List **three different processes** that could have produced that second bump. Make them different from one another, not variations on one explanation.
- b.** Circle the one you find most plausible.
- c.** Pick one of the others. What data, existing or new, would help you tell that process apart from the one you circled?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

c. \_\_\_\_\_

\_\_\_\_\_

**What is something new you learned today?**

\_\_\_\_\_

\_\_\_\_\_