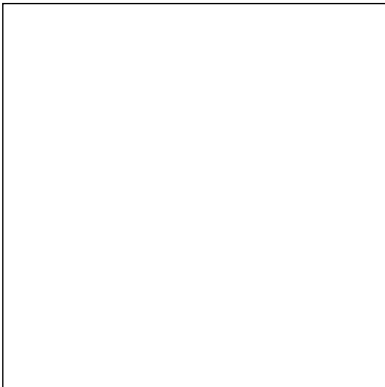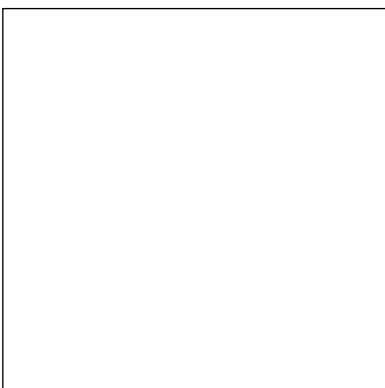**Calvin AI/ML** Handout | *Mar 3, 2025*

Name: _____

1. Can we use accuracy as loss in SGD? Why or why not?

2. Why is "surprise" a good intuition for log-loss (categorical cross-entropy) but not MSE? What are the units of each?

3. *embeddings warm-up*: (a) Place the following words in the space below so that similar words are closer together: *father, mother, son, daughter*. (b) Once you've done that, now try to add *brother*. Explain why the flat paper makes this hard; what would you do if you had another dimension to work with?

Before you leave, pick a couple of these questions to react to:

1. What was the most important concept from today for you?
2. What was the muddiest concept today?
3. How does what we did today connect with what you've learned before?
4. What would you like to review or clarify next time we meet?
5. What are you curious, hopeful, or excited about?