Name: _____

Problem Framing review

Consider making an AI agent that plays tic-tac-toe.

1. What might the **perception** coming into the agent look like? What might an **action** taken by the agent look like? Give *two specific examples*.

2. Suppose we got a dataset of human tic-tac-toe games, and we trained an agent so that it could very accurately **predict which move the human player made**. This is (circle one) supervised / unsupervised / reinforcement learning.
   - *How would this agent perform vs an agent making random moves*?
   - Against a *human* player?
   - How would you quantify its performance?

3. Could you make some change so that the agent *learns* to be an *even better* tic-tac-toe player? What change?

Dot Product Application (simpler this time)

Suppose an image is represented by the vector `v = [3, -1]`. Write two different vectors, `a` and `b`, so that `v dot a` is larger than `v dot b`. See how many different pairs your group can come up with in 2 minutes!

Lab Notes

Write down your answers to the lab "Task" questions here and on the back.

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

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