

Problem Framing review

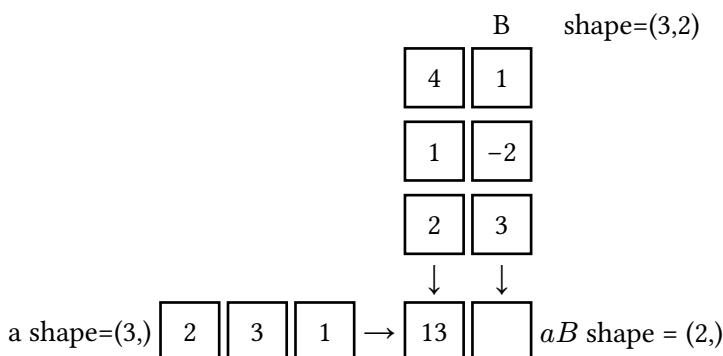
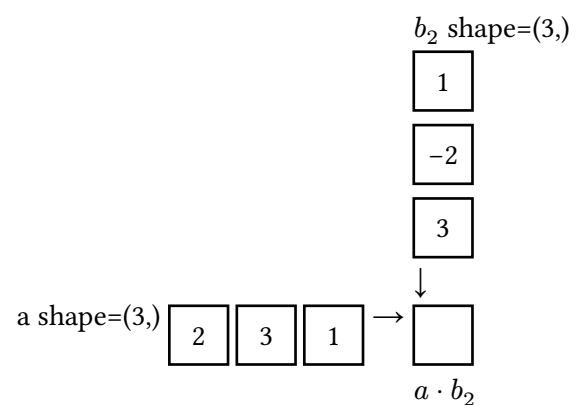
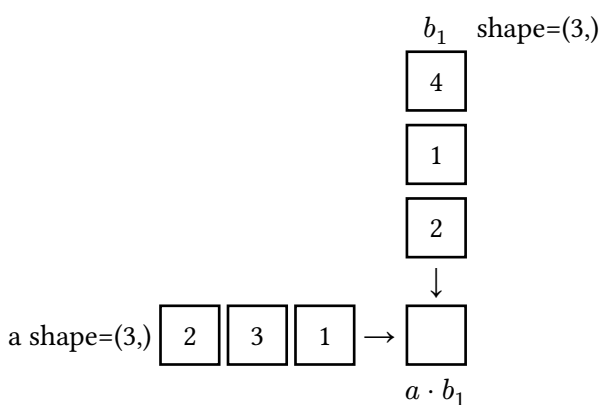
List at least 3 different numeric (quantifiable) objectives that an AI system might have. Be specific (e.g., accuracy at classifying flower images). Consider both supervised and reinforcement learning settings. Consider both what we've looked at in class and other systems that you've experienced; include a system where your behavior enters into the objective.

Lab 2 Review

Try to do these without looking at your notebook. Then check with your neighbors and your notebook. Note that NumPy and PyTorch have basically the same API for the operations we've looked at so far.

1. A dot product can be computed as an element-by-element operation followed by a reduction operation. What are those two operations, and how can you express them in NumPy / PyTorch?
2. Suppose we have a NumPy array (or PyTorch tensor) y_{true} of true targets and a NumPy array (or PyTorch tensor) y_{pred} of predictions. Try to write a Python expression to compute:
 - a. `mean_squared_error` =
 - b. `mean_absolute_error` =

Dot Products and a small extension...



How can you tell that the result has shape (2,)?

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?