These questions relate to lecture material and aim to highlight the most important concepts. We will cover questions similar to these for our final.

1. What are foot contacts? Why might they be important for blending?

2. Write an algorithm which detects foot contacts based on a threshold distance from the floor.

3. Suppose we are looping a motion which snaps back to the start position when it replays. Why does this happen and how can we fix it?

4. Design a motion controller that supports running, standing, and punching.

4. Extend the two link IK example to support the case where the shoulder is at a generic position p1.

5. Suppose we wish to implement gaze controller such that the head of a character looks towards a desired direction d. Suppose the forward direction of the head is its local X axis. Find a global rotation matrix that sets the head to the desired direction.