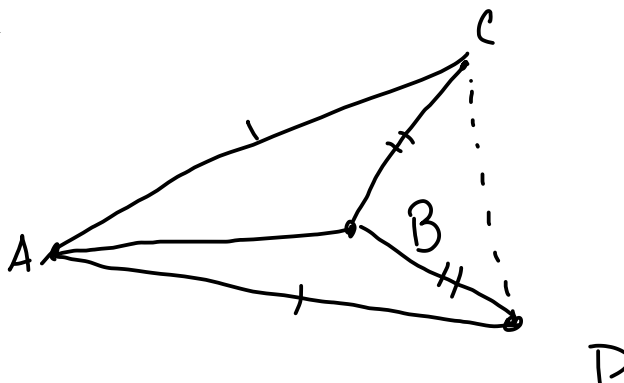Homework due Mon Nov 1:

1. Pg. 55 problem 4: write up the proof for the case where the segment $\overline{CD}$ does not intersect the segment $\overline{AB}$ as shown in this diagram

2. Prove by contradiction: **Distinct lines intersect in at most one point.**
You may find one of these ways of saying this helpful:
Alternate 1: Given distinct lines l and m, the lines intersect in 1 or 0 points.
Alternate 2: Distinct lines can't intersect in more than one point.

"Distinct" means that the lines are not exactly the same line with two different names

In class we discussed the proof of theorem I.6, which is a proof by contradiction. A proof by contradiction follows the format:

*State the givens

*Suppose the opposite of the "to prove" (conclusion)

*Explain why it is impossible for both the givens and the supposition to be true—use deductive reasoning until you reach a contradiction (something or things that can't be true).

*Conclude that the supposition is false.