The take-home final consists of the following six (6) problems (some with multiple parts). Please write all solutions (to all parts of all questions) on separate paper (ideally—type-up your solutions). I will send out an email later in the week with instructions on how to turn in your take-home finals.

1. Give examples of arguments satisfying the following descriptions (explain why your examples work):

   1.1. A valid argument with a true conclusion and false premises.
   1.2. A cogent argument with true premises and a false conclusion.
   1.3. A cogent argument that has reasonable premises but which is (nonetheless) weak.
   1.4. A strong argument that is not valid.
   1.5. A valid argument with true premises and a false conclusion.

2. Give examples of propositions satisfying the following descriptions (explain why your examples work):

   2.1. A proposition that is true, but which might have been false.
   2.2. A proposition that is false, and which cannot be true (i.e., which is impossible).
   2.3. A proposition that is reasonable (for someone) to believe, but false.
   2.4. A proposition that is unreasonable (for someone) to believe, but true.
   2.5. A proposition on which it would be reasonable (for us) to suspend judgment.

3. Do you think that you can have good reason to believe a proposition even if you don't have any strong argument for it? If so, give examples (of such reasonable beliefs) and explain why you don't have any strong arguments for these reasonable beliefs. And, if not, explain why not.

4. Sometimes your background evidence defeats an (inductive) argument by showing that the conclusion is probably false. [This happened in the case of Argument 4.8 in chapter 4 of the text.] But, it is also possible for your background evidence to defeat an argument by making the conclusion one that you should suspend judgment on. Give an example illustrating this possibility (and explain why your example works).

5. Suppose you are considering some controversial claim. You find one interesting argument supporting the claim and one interesting argument against the claim. Upon analysis, you conclude that the first argument is strong. What can you conclude about the second argument at this point? Give an argument for your answer to this question (which uses the definitions of the salient concepts from the course, etc.).

6. Reconstruct the following argument:

   Students who come to school under the influence of drugs are disruptive and interfere with the education of other students. Students have a right to a quality education and the school board must not permit some students to interfere with the education of others. So we should test students to see if they are using drugs. Drug users should not be permitted to attend school.