

Critical Thinking HW 1

1. From the handout on arguments and non-arguments (see LMS Schedule), for numbers 8, 12, 14, 16, 17, 18, 19, 20:

Determine whether the passage expresses an argument or not (remember: an argument may not be a very good argument). If the passage does contain an argument:

- Circle its conclusion
- Underline each premise
- Draw wavy lines under premise and conclusion indicators (i.e. words like therefore, because, since, etc)

(or use some other labeling scheme, e.g. using different color high-lighting)

2. True or false? Why?

- a. All invalid arguments have a false conclusion.
- b. All arguments with a true conclusion are sound.
- c. All well-founded arguments have a true conclusion.
- d. All arguments with a false conclusion are invalid.
- e. All non-well-founded arguments have a false conclusion.

3. From the handout with simple logic arguments (see LMS schedule, January 31), numbers 8, 9, 10, and 11:

- a. Symbolize the argument, using appropriate letters
- b. Determine the name of the pattern (Modus Ponens, Modus Tollens, Affirming the Consequent, or Denying the Antecedent)
- c. State whether the argument is valid or not

4. From the handout with complex logic arguments (see LMS schedule, February 4), numbers 5, 6, and 8:

- a. Symbolize the argument, using appropriate letters
- b. Show the argument to be valid or invalid using a truth-table
- c. Show the argument to be valid or invalid using a short truth-table
- d. If the argument is valid, try to derive the conclusion from the premises, using the basic logic principles handout (see LMS schedule). If the argument is not valid, explain why.