Homework Assignment #1 **Due Feb 8th (in lecture)**

For each of the following, tell me what type of argument it is, **and why.** Also, if the argument is deductive, give me the best answer to the question 'Is it sound?' **Please complete on a separate sheet of paper!!

(1) All my students are excited about improving their minds. So everyone in the world is excited about improving their minds.

(2) All my students are excited about improving their minds. This follows from the fact that everyone in the world is excited about improving their minds.

(3) All my students are excited about improving their minds. So there must be something in the water.

(4) All my students are excited about improving their minds. So the future is in good hands.

(5) All my students should be excited about improving their minds. That's because improving your mind really can happen, and to improve your mind is to improve who you are.

(6) I should invest if I have expendable income. I do not have expendable income. So, I should not invest.

(7) We must become aware of any racist beliefs we might hold unconsciously. After all, these unconscious beliefs can sometimes cause people to make racial discriminations that are as harmful as any overt racism.

(8) Since particle-like behavior and wave-like behavior are the only properties that we ascribe to light, and since these properties now are recognized to belong not to light itself, but to our interaction with light,...it appears that light has no properties independent of us! To say that something has no properties is the same as saying that it does not exist. The next step in this logic is inescapable. Without us, light does not exist." –Gary Zukav, *The Dancing Wu Li Masters* (New York: Bantam Books, 1979), p. 95.

(9) Wars inevitably occur. That's because violence is human nature.

(10) Waging war is always wrong. That's because it involves killing human beings, and killing human beings is wrong.

For each of the following, please answer 'yes' or 'no'. (Do NOT use 'T' or 'F'.) Be sure to consult our "official" definition of deduction in completing these exercises.

- (1) If an argument is not deductive, then it is inductive.
- (2) If an argument is inductive, then it is possible for the premises to be true and the conclusion false
- (3) If an argument is deductive, then its conclusion is not explanatory.
- (4) If all premises are true, then the argument is deductive.
- (5) If an argument is deductive, then all premises are true.
- (6) No argument with a false conclusion is deductive.
- (7) Every argument with a true conclusion is deductive.
- (8) If all the premises of an argument are true, and the conclusion is true, then the argument is deductive.
- (9) Any deductive argument with a true conclusion is sound.
- (10) Any argument with a necessary truth as a conclusion is deductive.