

## Homework #4

\*Please print out the handouts “Valid Argument Forms” and “Formal Fallacies.” (The reading materials do not discuss all the forms on these handouts, but I will be holding you responsible for all of them.) Then, please complete the following exercises.

*Symbolize the following arguments. If the argument has a deductively valid argument form, tell me which form it has. Or if it commits a formal fallacy, tell me which fallacy it commits.*

Note: *At least one argument below NEITHER has a valid form, nor commits a formal fallacy. In such a case, just write “neither” and move on.*

(1) The Lord says (Gen. vi. 7), “It repenteth Me that I have made man.” But if the Lord repents of creating man, then He has a changeable will. Therefore, the will of God is changeable.

(2) If Susan is a famous author, then she knows how to write. But Susan does not know how to write. So, she is not a famous author.

(3) If Susan is a famous author, then she knows how to write. Moreover, Susan knows how to write. So, she is a famous author.

(4) If Susan is a famous author, then she knows how to write. But Susan is not a famous author. So, she doesn’t know how to write.

(5) If it snows today, we’ll cancel class. So either it is not snowing today, or we’ve cancelled class.

(6) Assume for argument’s sake that the University fails to get a substantial budget increase. In that case, computer service will only get worse. So if the University doesn’t get a substantial budget increase, then computer service is going to deteriorate.

(7) If the economy is unstable, then it’s the Democrats’ fault. If it’s the Democrats’ fault, then you should vote Republican. So, if the economy is unstable, then you should vote Republican.

(8) Let’s just suppose for the moment that gay marriage should be legal. If so, then it should be legal to marry your family members or farm animals or whatnot. But that’s absurd. So, it’s false that gay marriage should be legal.

(9) Among the positive integers, my favorite number is either even or not. If it is even, then it is prime only if it is 2. If it is not even, then it is not 2. So, my favorite number either is prime only if it is 2, or it is not 2.

(10) Among the positive integers, my favorite number is not both prime and odd. Though in fact, it is odd. So it is not prime.

(11) Among the positive integers, my favorite number is not both prime and odd. And in fact, it is not odd. So it is prime.

(12) If stocks rise, you will see me cruising the neighborhood in a new Prius. So if you don't see me cruising in the Prius, stocks did not rise.

*The following has both a deductive argument form AND has the form of a fallacy. Identify each for me.*

(13) Either you're a theist or an atheist. But you're not an *atheist*. So you're a theist.

*One valid argument form that is not on your handout is the "double negation" rule:*

$$\mathbf{P} \triangleleft \triangleright \sim \sim \mathbf{P}$$

*Given this rule, suppose we ignore the difference between **P** having two tildes and **P** having no tildes (i.e., we treat them as if they were the same sentence). Then, what valid argument form do the following arguments exemplify? (Don't forget to symbolize the arguments first.)*

(14) It is not true that either abortion is not permissible or capital punishment is not permissible. Therefore, abortion and capital punishment are both permissible.

(15) It is not true that both abortion is not permissible and capital punishment is not permissible. Therefore, either abortion or capital punishment is permissible.