

12A: Problem Set 1

Due **Monday, Sept 16, 12pm**. Deliver completed problem set to the 12A dropbox outside room 301, Moses Hall. Reminder: late problem sets do not receive credit.

1. For each of the following arguments, indicate whether or not they are (i) deductively valid, (ii) formally valid, (iii) sound, or (iv) have a true conclusion.
 - (a) If the capital of France is not Paris, the capital of Germany is Berlin.
The capital of Germany is not Berlin.
So, the capital of France is Paris.
 - (b) Barack Obama is a bachelor.
So, Barack Obama is not married to Madonna.
 - (c) Barack Obama is a bachelor.
So, Barack Obama is either married or not married.
 - (d) If Alaska is the largest state, then no state is larger than Alaska.
Tiramisu is a kind of dessert.
Alaska is the largest state.
So, no state is larger than Alaska.
 - (e) If Alaska is the largest state, then no state is larger than Alaska.
Tom Cruise was born yesterday.
Alaska is the largest state.
So, no state is larger than Alaska.
 - (f) Philosophy is taught at Berkeley.
So, the iPhone has a color screen.
 - (g) Philosophy is taught at Berkeley.
The iPhone has a color screen.
So, the iPhone has a color screen.
2. The following arguments are not deductively valid. For each of these arguments, provide two different sentences which are each such that, when you add either one of the sentences to the premises, the resulting argument is deductively valid. (In other words, your task is to provide, for each argument, two different ways to “fix” the argument.)
 - (a) *Lost* was the most addictive television show in history.
So, sugar dissolves in acetone.
 - (b) Dogs like dog food or cats like dog food.
So, cats like dog food.
 - (c) Any man who compares himself to a god is a narcissist.
So, Kanye is a narcissist.
 - (d) Jane does what is good for her or she slacks off.
If Jane does what is good for her, she will study logic.
So, Jane will study logic or Jane will spend the rest of her life getting hustled.

3. For each sentence below, add or remove single quote marks as necessary in order to render the sentence true. (If the sentence is already true, indicate this, and don't add any punctuation.)
- (a) San Francisco is a city, but Boston is not.
 - (b) There are fewer syllables in 'catnap' than there are in Cher's stage name.
 - (c) 'Will Smith' did not get his last name from the English rock band 'The Smiths'.
 - (d) Chomsky's name is Chomsky, and this name is used to refer to 'Chomsky' by people who have met Chomsky.
 - (e) The word Chomsky is a complex expression that refers to Chomsky's name, which is of course Chomsky, but it's a phrase, not a name.
 - (f) Many philosophers think that 'names' are 'expressions' which characteristically 'refer' to mind-independent objects.
 - (g) We usually don't give names 'names' themselves, but we can if we want to.

4. Consider the following sentence:

A person who is not engaged in an unlawful activity and who is attacked in any other place where he or she has a right to be has no duty to retreat and has the right to stand his or her ground and meet force with force, including deadly force if he or she reasonably believes it is necessary to do so to prevent death or great bodily harm to himself or herself or another or to prevent the commission of a forcible felony.

Is this sentence a logical conjunction? Explain why or why not.

5. Consider sentences (22)-(26) in exercise 3.2 of the textbook (p.40). None of these sentences are logical conjunctions. For each sentence, briefly explain why.