

Philosophy 103: Introduction to Logic

Logic Exercise: Statements

©2008 Licensed under the GFDL

Directions: A statement is a sentence with a truth value. We need not know the truth value (*i.e.*, whether the truth value is “true” or “false”) in order to recognize the presence of a statement. For the purpose of this exercise, identify the sentences in the following problems as statements if and only if the sentence is in principle falsifiable or verifiable. Emotive, modal, fictional, and contrafactual sentences are not to be counted as statements here. Explain your answers.

1. What is so rare as a day in June? (Lowell, *The Vision of Sir Launfal*)
Strictly speaking, poetry does not have a truth-value, so c.p. this sentence is not a statement. Also questions c.p. are not taken have truth values.
2. We ought to have a good balance between work and relaxation.
Modal statements are not assumed to have truth values in beginning logic. Sentences with modal verbs (such as ‘‘should,’’ ‘‘ought,’’ and ‘‘might’’’) require a special account. So this sentence is not taken to be a statement.
3. Not all mathematical statements can be reduced to set theory.
Since this sentence is either true or false, it counts as a statement.
4. Stock market movements cannot be predicted.
Since this sentence has a truth value, it is a statement.
5. Color is a subjective rather than an objective characteristic of things.
The sentence has a truth value determined in part by the meaning of the words ‘‘subjective’’ and ‘‘objective.’’ It is a statement.
6. Mental activity is exhibited whenever electrical activity is present in neural pathways.
This sentence is testable as being true or false and consequently is a statement.
7. The center of most galaxies is empty.
Whether or not the truth value of this sentence is known is not significant. Since we know that it is either true or false, it counts as a statement.

-
8. In artistic portraiture, the less important the subject is, the more realistic the work is considered.
Again, this sentence can in principle be shown to be true or false and so is a statement.
 9. A person's behavior changes his attitude more than a person's attitude changes his behavior.
This sentence is psychologically testable and as such has a truth value; hence, it is a statement.
 10. Consider the choices of your avocation carefully.
Normally imperative sentences (i. e. commands) do not have truth values, so this sentence is not a statement.
 11. Appreciation of music is not based on likes or dislikes.
The sentence is arguably true or false in terms of what "appreciation" and "likes or dislikes" implies and so is a statement.
 12. The word "empathy" has at least eight different senses.
Since this sentence can be verified by checking a good dictionary, it is considered a statement.
 13. The U.S. would have been much better off if it wouldn't have invaded Iraq.
Although this sentence is arguable, in beginning logic, it is not counted as a statement. As a contrary-to-fact conditional sentence (or counterfactual sentence), it is not in logic considered a statement. Counterfactual sentences (although often termed "statements" in philosophical writings) require special logical treatment.
 14. The only true generalization about the character of Hadrian is that he was consistent in his inconsistencies.
From the point of view of history, the truth of this statement might not be yet be established, but the sentence does have a truth value.
 15. "And I died in my boots like a pioneer; With the whole wide sky above me."
As part of a poem, (Benet, *The Ballad of William Sycamore*) the sentence is not a statement. Of course, literally the writer could not have died only to write about the experience later. Fictional statements require special treatment in logic.