

Introduction to Logical Reasoning

*Workshop on Categorical Statements and
Basic Categorical Inferences*

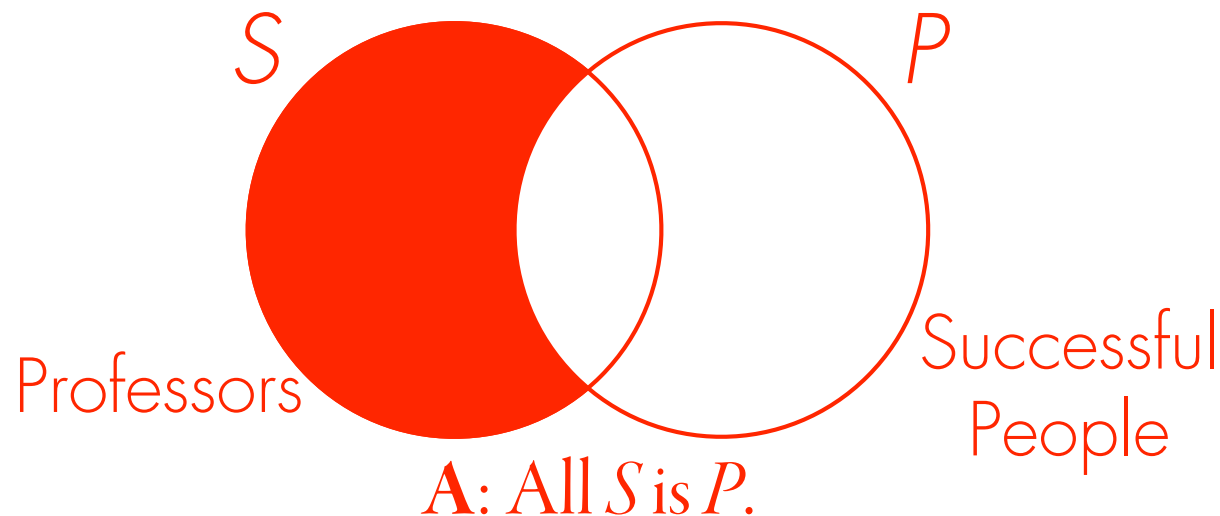
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Part I, Problems 1–3 Solutions

“All professors are successful”.

1. The subject (S) is professors.
2. The predicate (P) is successful people.
3. The Venn diagram for this statement:



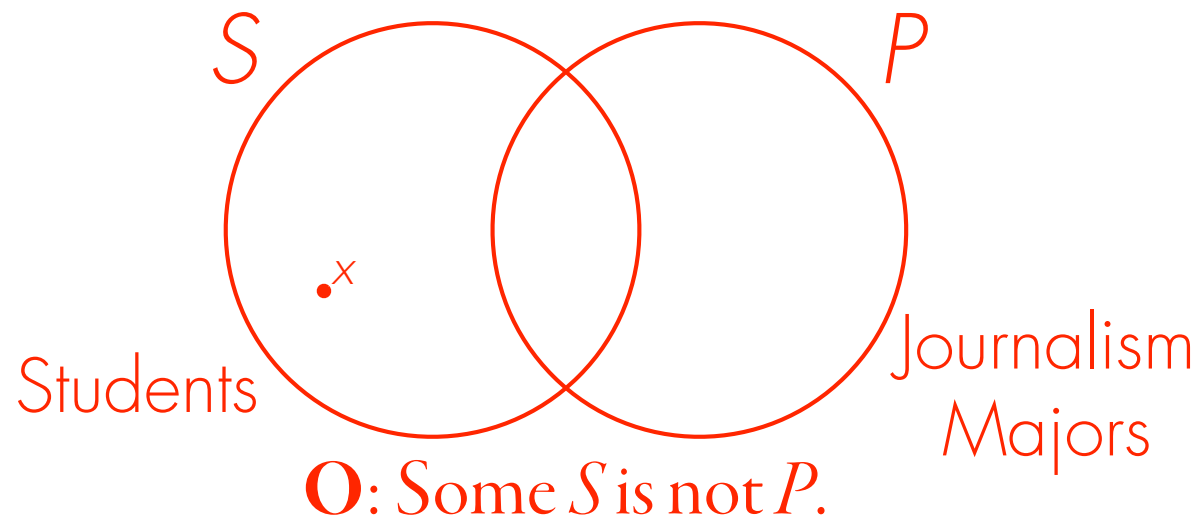
Part I, Problems 4–5 Solutions

4. The quality of this statement is *affirmative*, since it is telling us that a relationship holds between the subject and the predicate.
5. The quantity of this statement is *universal*, since it is telling us something about *all* professors.

Part II, Problems 1–3 Solutions

“Some students are not journalism majors.”

1. The subject (S) is students.
2. The predicate (P) is journalism majors.
3. The Venn diagram for this statement:



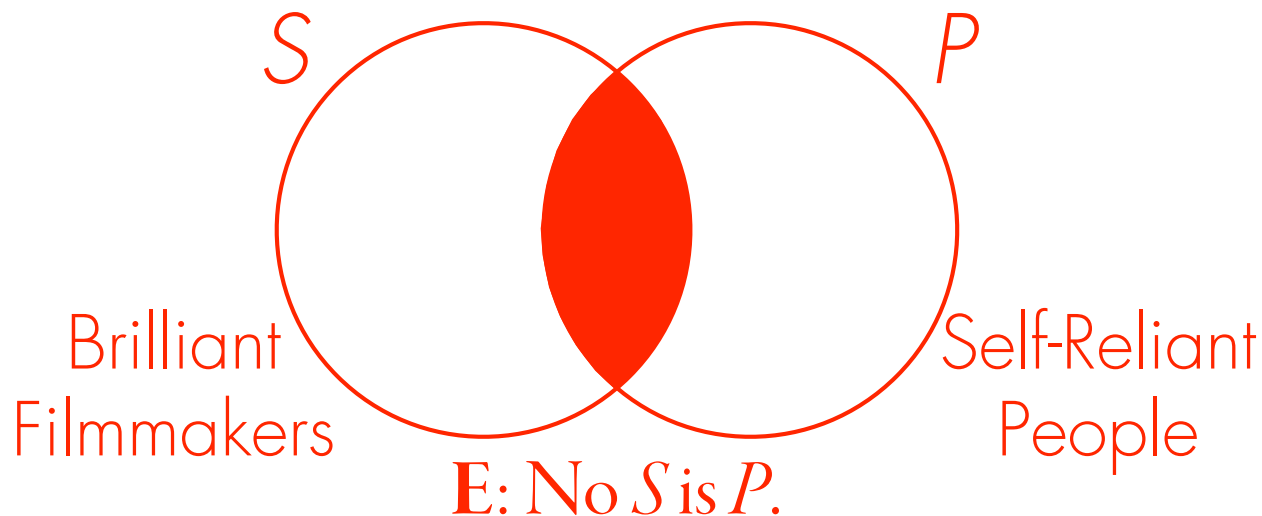
Part II, Problems 4–5 Solutions

4. The quality of this statement is *negative*, since it is telling us that a relationship does *not* hold between the subject and the predicate.
5. The quantity of this statement is *particular*, since it is telling us something about *some* students.

Part III, Problems 1–3 Solutions

“No brilliant filmmakers are self-reliant.”

1. The subject (S) is brilliant filmmakers.
2. The predicate (P) is self-reliant people.
3. The Venn diagram for this statement:



Part III, Problem 4 Solutions

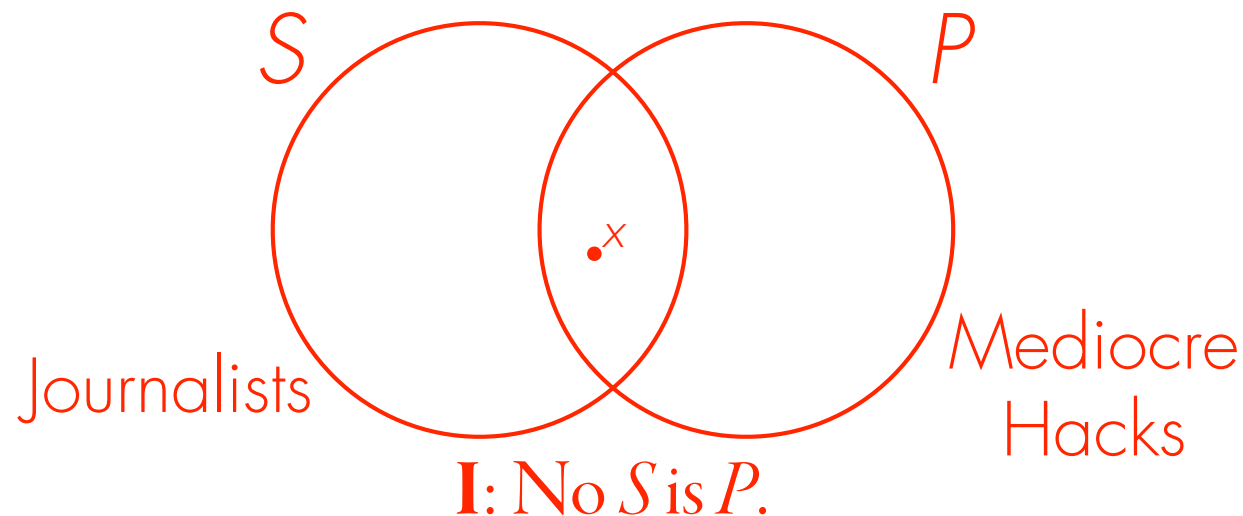
If the statement “No brilliant filmmakers are self-reliant” is true, then ...

- A. The statement “No self-reliant people are brilliant filmmakers” is *true*. (See the slides on conversion.)
- B. The statement “All brilliant filmmakers are non-self-reliant” is *true*. (See the slides on obversion.)
- C. The statement “No non-self-reliant people are non-brilliant filmmakers” may be either true or false, its truth value is *unknown*. (See the slides on contraposition.)

Part IV, Problems 1–3 Solutions

“Some journalists are mediocre hacks.”

1. The subject (S) is journalists.
2. The predicate (P) is mediocre hacks.
3. The Venn diagram for this statement:



Part IV, Problem 4 Solutions

If the statement “Some journalists are mediocre hacks” is true, then ...

- A. The statement “Some mediocre hacks are journalists” is *true*. (See the slides on conversion.)
- B. The statement “Some journalists are not non-mediocre hacks” is *true*. (See the slides on obversion.)
- C. The statement “Some non-mediocre hacks are non-journalists” may be either true or false, its truth value is *unknown*. (See the slides on contraposition.)

Next Class...

We will learn about more inferences from categorical statements by using what is now known as the “square of opposition”.