LOGIC STUDY SHEET: DEDUCTIVE ARGUMENTS

Chapter Eight:
Categorical Syllogisms
Def.: A **deductive argument** is an argument whose premises are intended to provide conclusive support for its conclusion.
A deductive argument is **valid** when it is impossible for its premises to be true and its conclusion false. If the premises are true, the conclusion must be true.
A deductive argument is **cogent** if and only if it is valid and contains only true premises.

Categorical Propositions
Propositions with a subject and a predicate, each representing a **class**. The purpose of the proposition is to establish a relationship between the two classes.
The **form** of the proposition is the manner in which the proposition speaks of the classes.
A: All S is P. universal affirmative
E: No S is P. universal negative
I: Some S is P. particular affirmative
O: Some S is not P. particular negative
A term is **distributed** when the form talks about every single member of a class in relation to the other class.
A: All S is P. subject class is distributed
E: No S is P. both subject and predicate classes are distributed
I: Some S is P. neither class is distributed
O: Some S is not P. predicate class is distributed

Square of Opposition: deductive inferences
A: T or F or ? E: T or F or ? I: T or F or ? O: T or F or ?
If "All S is P" is true:

If " All S is P" is false:

If "No S is P" is true:

If "No S is P" is false:

If "Some S is P" is true:

If "Some S is P" is false:

If "Some S is not P" is true:

If "Some S is not P" is false:

Standard Form: two premises, one conclusion