

Foundations of Logic

Logic · Answer Key · 8 Questions

1. Which branch of philosophy deals with the principles of correct reasoning?

- A) Ethics
- B) Metaphysics
- C) Logic**
- D) Aesthetics

2. In formal logic, a statement that can be either true or false is called a:

- A) Paradox
- B) Proposition**
- C) Hypothesis
- D) Dilemma

3. A logical argument where the conclusion necessarily follows from the premises is known as:

- A) Inductive reasoning
- B) Abductive reasoning
- C) Deductive reasoning**
- D) Fallacious reasoning

4. The principle of non-contradiction states that a proposition cannot be both true and false at the same time and in the same respect. This is a fundamental law of:

- A) Statistics
- B) Quantum mechanics
- C) Classical logic**
- D) Economics

5. Which logical connective is represented by the symbol '?'?

- A) OR
- B) NOT
- C) IF...THEN
- D) AND**

6. In syllogistic logic, a categorical proposition that claims all members of one class are members of another class is known as a(n) _____ proposition.

- A) Particular affirmative
- B) Universal affirmative**
- C) Particular negative
- D) Universal negative

7. What is the name for an argument that contains a flaw in its reasoning, making it invalid?

- A) Theorem
- B) Axiom
- C) Lemma
- D) Fallacy**

8. The process of drawing general conclusions from specific observations is called:

- A) Deduction
- B) Reduction
- C) Induction**
- D) Abstraction