Reason or Rhetoric? 10th Grade Logic & Fallacy Challenge

Sophomores dismantle sophisticated rhetorical traps and evaluate the formal validity of complex philosophical arguments through rigorous situational analysis.

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1. A defense attorney argues: 'The prosecution claims my client was at the scene because of GPS data, but they fail to acknowledge that the GPS industry is plagued by privacy scandals and corporate greed.' Which informal fallacy is being deployed?

    A.   Post hoc ergo propter hoc

    B.   Red herring

    C.   Begging the question

    D.   Appeal to authority

2. In formal logic, if we have the premises 'If P, then Q' and 'Not Q', we can validly conclude 'Not P' using the rule of inference known as _____.

    A.   Modus Ponens

    B.   Affirming the Consequent

    C.   Modus Tollens

    D.   Denying the Antecedent

3. An argument can be logically valid even if all of its premises are factually false.

    A.   True

    B.   False

4. Analyze this syllogism: 'No philosophers are billionaires. Some researchers are philosophers. Therefore, some researchers are not billionaires.' This argument is:

    A.   Invalid due to an illicit major term

    B.   Invalid due to an undistributed middle term

    C.   Valid via categorical syllogism rules

    D.   A circular reasoning fallacy

5. A politician states, 'We must increase the military budget, or we will be invaded by next year.' This statement creates a _____ by ignoring middle-ground options like diplomacy or maintaining current spending.

    A.   Slippery Slope

    B.   False Dichotomy

    C.   Hasty Generalization

    D.   Equivocation

6. A 'sound' argument is one that is both logically valid and possesses premises that are actually true in reality.

    A. True
    B. False

7. Identify the logical flaw: 'The new urban planning initiative must be a failure because the lead architect was once fired from a firm for personal conduct issues.'

    A. Genetic Fallacy
    B. Appeal to Ignorance
    C. Ad Hominem Circumstantial
    D. Ad Hominem Abusive

8. If an argument relies on the assumption that because a group's components have a certain property, the entire group must also have that property, it commits the fallacy of _____.

    A. Division
    B. Composition
    C. Affirming the Consequent
    D. Non-Sequitur

9. Which of the following represents an Inductive Strong argument?

    A. Every laptop in this store is on sale. Therefore, that specific laptop is on sale.
    B. Most historical artifacts from the Ming Dynasty were well-preserved; therefore, this unexamined Ming vase is likely well-preserved.
    C. If it snows, the game is cancelled. The game is cancelled, so it must have snowed.
    D. Apples are fruits and round; oranges are fruits and round; therefore, all fruits are round.

10. The 'Slippery Slope' fallacy is only committed if the suggested chain of events is presented without sufficient evidence for the causal links.

    A. True
    B. False