

Name: _____

Date: _____

Answer Key: Reason or Treason: 6th Grade Logic & Fallacy Challenge

Analyze structural validity and identify common informal fallacies within relatable social and historical scenarios to sharpen sixth-grade evaluative thinking.

1. A student argues: 'If we allow students to bring reusable water bottles to class, eventually they will start bringing entire picnic baskets and nobody will ever get any work done!' Which fallacy is this?

Answer: B) Slippery Slope

A slippery slope fallacy occurs when someone claims that one small step will inevitably lead to a chain of extreme and unlikely consequences.

2. In a deductive argument, if the premises are true and the logic is valid, the conclusion must be true.

Answer: A) True

Deductive reasoning aims for certainty; if the structure is correct and the starting facts are true, the conclusion is guaranteed.

3. When someone ignores an opponent's actual position and instead attacks an exaggerated or misrepresented version of it, they are using the _____ fallacy.

Answer: C) Straw Man

The 'Straw Man' fallacy involves building a weak version of an argument just to knock it down easily, much like a man made of straw.

4. Maya notices that the last three times the school cafeteria served tacos, it was a Tuesday. She concludes: 'The cafeteria always serves tacos on Tuesdays.' What type of reasoning is Maya using?

Answer: B) Inductive Reasoning

Inductive reasoning uses specific observations or patterns to make a generalized conclusion about what is likely true.

5. An 'Ad Hominem' attack is a logical way to win a debate because it focuses on the character of the person talking.

Answer: B) False

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Ad hominem attacks are fallacies because they attack the person rather than addressing the actual logic of the argument.

6. Premise 1: All mammals have backbones. Premise 2: A dolphin is a mammal. Conclusion: Therefore, a dolphin has a backbone. This is an example of:

Answer: A) A valid deductive syllogism

This is a classic syllogism where the conclusion is a logical necessity derived from two broadly accepted premises.

7. A speaker says, 'Either we fund the new library, or our children will never learn to read.' This is a _____, because it ignores other possibilities.

Answer: C) False Dilemma

A False Dilemma (or False Dichotomy) limits a complex situation to only two extreme choices when more options actually exist.

8. If you argue that a new school rule is good simply because 'everyone else is doing it' or 'it's the most popular opinion,' which fallacy are you using?

Answer: A) The Bandwagon Fallacy

The Bandwagon fallacy (ad populum) suggests that since something is popular or common, it must be correct or good.

9. A logical 'fallacy' is a name for a mistake in reasoning that makes an argument weak or invalid.

Answer: A) True

Fallacies are specific types of errors in logic that prevent an argument from being sound.

10. In logic, _____ is the process of using what you already know to be true to figure out what else must be true.

Answer: A) Inference

An inference is the mental step that allows a thinker to jump from premises or evidence to a logical conclusion.