

Answer each question.

1. Define *formal fallacy*.
2. Define *informal fallacy*.
3. When is a valid argument unsound?
4. What should you always do after you have completed your essay?

Classify the informal fallacy in each deductive argument as accident, begging the question, composition, division, or equivocation.

5. Anyone who thrusts a knife into another person should be arrested on the grounds of attempted murder. Since surgeons regularly put knives into their victims, they should be arrested for attempted murder.
6. Every atom in this chair is invisible. Therefore, the chair is invisible.
7. Please be quiet. You are making far too much noise.
8. A watermelon is a fruit. Therefore, a small watermelon is a small fruit.
9. The average American family has 2.4 children. The Smiths are an average American family. Therefore the Smiths have 2.4 children.

Classify each deductive argument as displaying a false dichotomy or having one of these three formal fallacies: affirming the consequent, denying the antecedent, or improper negation.

10. If your pet is a whale or a dolphin, then your pet is a mammal. Judy is not a mammal. Therefore, Judy is not a whale or not a dolphin.
11. If Probst won the election, then we would have a Democrat for mayor. Probst did not win the election. Therefore, we do not have a Democrat for mayor.
12. Study hard for the test or you may flunk it. You didn't flunk the test. Therefore, you studied hard.
13. If Amoco is drilling for oil in the North Sea, then so are Texaco and Shell. Texaco and Shell are drilling for oil in the North Sea. Therefore, Amoco is drilling there also.
14. Which of the following verses says that Christ is the way of salvation and that He is the only way?
 - A. John 3:16
 - B. Acts 4:12
 - C. Romans 10:13
 - D. I John 5:12

Use a truth table to show that the argument is false.

15. $[(\sim A \rightarrow B) \wedge A] \rightarrow \sim B$

16. $\sim(A \wedge B) \rightarrow \sim B$

Determine whether the argument is valid or invalid.

17. Either drive carefully or you will die. Paula did not die. Therefore she drove carefully.
18. Mr. Prendergast is a history teacher. Yesterday, he discussed logic in a good essay to his junior class. Therefore, logic is included in that history class.
19. People who don't live in the city don't appreciate it. Valerie doesn't appreciate the city. She therefore must not be from the city.

Answer the question.

20. Explain the significance of Colossians 2:3, 8–9 for logic.