

Classify each hypothetical deductive argument as a counterexample, the law of cases, the law of contradiction, or the law of deduction.

1. Assume that ogres are real for purposes of argument. If they are real, why hasn't anyone seen one? This shows that ogres must be fictitious after all.
2. Assuming that it snows this winter, the waterfall will flow well in the spring. However, even if it does not snow, the waterfall should still flow from the spring rains.
3. Supposing that people are good, you can see why there is good in the world. However, it is difficult to explain all the evil. Where could it have come from if people are good? On the other hand, if people are evil, then it is easy to explain both the bad and the good.
4. Indian pipe is a completely white plant. It shows that not all plants use photosynthesis.
5. In a medical lab, technicians gave gerbils a certain drug. The movements of all the gerbils given the drug became sluggish. Therefore, the drug causes sluggishness.
6. Whenever José throws a curve ball to Ben, Ben gets a strike. Therefore, in Ben's batting, curve balls cause strikes.
7. Fred will be playing Steve in chess tomorrow. In the past, when Fred made the first move, Steve won. However, Steve also won when he made the first move. Either way, Steve won, so Steve is the favorite in tomorrow's chess match.

Give the correct conclusion to the pair of premises given.

8. $A \rightarrow B$
 $A \rightarrow \sim B$

9. $A \rightarrow B$
 $\sim A \rightarrow B$

Provide the reason for each step in the proof of $M \vee (N \wedge P) \rightarrow (\sim N \rightarrow M)$.

10. $M \vee (N \wedge P)$

11. $\sim M$

12. $N \wedge P$

13. N

14. $\sim M \rightarrow N$

15. $\sim N \rightarrow M$

Provide the reason for each step in the proof of $[(A \vee B) \rightarrow \sim A] \rightarrow \sim A$.

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

17. A

18. $A \vee B$

19. $\sim A$

20. $A \wedge \sim A$

21. $\sim A$

Answer the question.

22. Explain the significance of Acts 17:2 for logic.