

Definitions:

Valid: An argument is valid if and only if it is impossible for there to be any situation in which the premises are all true but the conclusion is false.

Sound: An argument is sound if and only if it is valid and all the premises are true.

For each of the following arguments, determine the premises and conclusion. Then ascertain whether the argument is valid. If it is valid, take a stance about whether it is sound or unsound.

1. All dogs are mammals, and no mammals are birds. Thus, no birds are dogs.
2. Joe uses steroids. Joe can only win the race if he uses steroids. As such, Joe will win the race.
3. MTV is degrading the morals of our youth. This is because MTV shows women wearing bikinis, and anything representing women in such a fashion is corrupting to our children's morals.
4. Cassius Clay was the world heavyweight champion in 1966. Thus, the world heavyweight champion in 1966 was Mohammed Ali.
5. Justin hates Britney, and Britney hates her mom. So, Justin hates Britney's mom. [Symbolize this]
6. Justin is a bachelor. Thus, he must be unmarried, since all bachelors are unmarried.
7. Justin is unmarried, for he's a bachelor.
8. Only losers use drugs, and Joe doesn't use drugs. So he isn't a loser.
9. It's false that if God exists there can't be evil in the world. Therefore, God exists.
10. Our class is scheduled to meet in Cabell hall on Wednesday afternoon. A bomb scare has closed Cabell hall all day Wednesday. Hence, our class won't meet.