

HOMEWORK 7/8

- 1) Prove: No sane witness would lie if his lying would implicate him in a crime. Therefore, if any witness implicated himself in a crime, then if all witnesses were sane, that witness did not lie.
- 2) Prove: Any car with good brakes is safe to drive and safe to ride in. So if a car is new and if all new cars have good brakes, then it is safe to ride in.
- 3) Translate into relational predicate notation: A person is maintaining a nuisance if he has a dog that barks at everyone who visits its owner.
- 4) Translate into relational predicate notation: Any man who hates children and dogs cannot be all bad.
- 5) Prove: There is a man whom all men despise. Therefore, there is a man who despises himself.

Grad only:

Punctuate the following so it makes sense and translate into predicate calculus notation:

That that that is is not that that that is not.