

Homework Solutions

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Exercise 5

- (a) A Type I error is to believe that the gun is not loaded when it is loaded. That sounds pretty serious to me. A Type II error is to believe that the gun is loaded when it is not loaded. If you are trying to defend yourself, then that could be a serious error.
- (b) A Type I error is to believe that the dog does not bite when, in fact, the dog does bite. Ouch! That sounds pretty serious to me. A Type II error is to believe that the dog does bite when, in fact, the dog does not bite. I don't see any harm in that.
- (c) A Type I error is to believe that the mall is closed when, in fact, the mall is open. That does not sound serious. A Type II error is to believe that the mall is open when, in fact, the mall is closed. That may not be serious, but it sure would be annoying to drive to the mall just to find it closed.
- (d) A Type I error is to believe that the watch is waterproof when, in fact, the watch is not waterproof. So you jump in the water with your watch on and ruin it. That's serious. A Type II error is to believe that the is not waterproof when, in fact, the watch is waterproof. I don't see any harm in that.