

HOMEWORK THOUGHTS: A large part of this course is learning how to interpret and communicate results. That is, an isolated p-value will not ever be a complete answer to a question. As stated below, please always explain your answers in a sentence or two (unless, of course, the problem is truly just computational).

1. Section 3.4: 1, 5, 6
2. Section 4.8: 4, 21, 24 (make it into a binomial problem)
3. A restaurant manager adds the customers' checks at the cash register when the customers depart. Later, an auditor checks the manager's results. He finds that out of the 12 addition mistakes, he made 10 mistakes in favor of the customer and 2 mistakes in favor of the manager. Let the null hypothesis be that the manager is equally likely to make a mistake in either direction, and the alternative hypothesis is that the manager is more likely to make mistakes in one direction or the other.

For a test with $\alpha = 0.0386$, find the power if the manager is three times as likely to make a mistake in favor of the customer as he is in his own favor. Show your work.
4. The standard method for dealing with ties is to ignore them. Explain what effect this has on the test when compared to an ideal situation where you didn't have any ties. (Convince me that you understand why.)