Name:	

Date: _____

 In Cleveland, a sample of 73 mail carriers showed that 10 had been bitten by an animal during one week. In Philadelphia, in a sample of 80 mail carriers, 16 had received animal bites. Is there a significant difference in the proportions? Use alpha=0.05. Find the 95% confidence interval for the difference of the two proportions. Use P-value method.

2. In a sample of 80 Americans, 55% wished that they wished that they were rich. In a sample of 90 Europeans, 45% wished that they were rich. At alpha=0.01, is there a difference in the proportions? Find the 99% confidence interval for the difference of the two proportions.

3. In a sample of 200 men, 130 said they used seat belts. In a sample of 300 women, 63 said they used seat belts. Test the claim that men are more safety-conscious than women, at alpha=0.01.

Part 2

 The standard deviation for the number of weeks 15 New York Times hardcover fiction books spent on their bestseller list is 6.17 weeks. The standard deviation for the 15 New York Times hardcover nonfiction list is 13.12 weeks. At alpha=0.10, can we conclude that there is a difference in the variances?

2. A researcher claims that the variation in the salaries of elementary school teachers is greater than the variation in the salaries of secondary school teachers. A sample of the salaries of 30 elementary school teachers has a variance of \$8324, and a sample of the salaries of 30 secondary school teachers has a variance of \$2862. At alpha=0.05, can the researcher conclude that the variance in the elementary school teachers' salaries is greater than the variation in the secondary school teachers' salaries?