Elementary Statistics. 1) An April 21, 2009, USA Today article titled “On road, it’s do as I say, not as I do” reported that 58% of U.S. adults speed up to beat a yellow light. Suppose you conduct a survey in your hometown of 150 randomly selected adults and find that 71 out of the 150 admit to speeding up to beat a yellow light. Does your hometown have a lower rate for speeding up to beat a yellow light than the nation as a whole? Use a 0.05 level of significance. Your answer should show assumptions, hypotheses, and conclusions. 2) The Committee of 200, a professional organization of preeminent women entrepreneurs and corporate leaders, reported the following: 60% of women MBA students say, “Businesses pay their executives too much money” and 50% of the men MBA students agreed. Does there appear to be a difference in the proportion of women and men who say, “Executives are paid too much”? Explain the meaning of your answer. Your answers should show assumptions, hypotheses, and conclusions. a) If the preceding percentages resulted from two samples of size 20 each, is the difference statistically significant at a 0.05 level of significance? Justify your answer. b) If the preceding percentages resulted from two samples of size 500 each, is the difference statistically significant at a 0.05 level of significance? Justify your answer.