

Practice Sheet #1

1. In each of the following situations, determine which distribution would be most appropriate to answer questions concerning the probability of selected outcomes.
 - a. Smoking is claimed to be on the rise among high school in the US. It is believed that 27.9% of all high school students smoke. I would like to see how that translates to the students in the high schools in the Bryan/College Station area. If that is correct, what would you expect the results of a sample of 10 students to yield? 500 students?
 - b. I am interested in determining if the rate of preeclampsia (hypertension) among women who are in their third trimester by taking a sample of 100 pregnant women from the local community. The national rate is estimated to be 26 per 1,000 pregnancies.
 - c. To add value to the previous study, I also plan to study the rate of women who have made positive changes in their own health care during the pregnancy. How would I handle the problem if I thought the rate was likely to be 60%? 98%?
 - d. As part of the first study, I have decided to also measure each student's weight to see if we compare to Houston.

