

Name:

Date:

Elementary Statistics

HW 7.2 part 1

1. From a KRC research poll, 1,002 respondents were asked if they felt vulnerable to identity theft and 531 said yes.

a. Use the sample data to find the following:

$$n =$$

$$\hat{p} =$$

$$\hat{q} =$$

b. What would be the best point estimate of p, the proportion of people who feel vulnerable to identity theft?

2. From a 3M Privacy Filters poll, 806 respondents were asked to identify their favorite seat when they fly and 492 chose the window seat.

a. Use the sample data to find the following:

$$n =$$

$$\hat{p} =$$

$$\hat{q} =$$

b. What would be the best point estimate of p, the proportion of people prefer the window seat when they fly?

3. From a Prince Market Research poll, 2518 respondents were asked how they responded to a bad driver and 1083 said they honked.

a. Use the sample data to find the following:

$$n =$$

$$\hat{p} =$$

$$\hat{q} =$$

b. What would be the best point estimate of p, the proportion of people that honked to respond to a bad driver on the road?

4. From an Angus Reid Public Opinion poll, 1005 respondents were asked if they felt that U.S. nuclear weapons made them feel safer and 543 said yes.

a. If the confidence interval is based on a confidence level of 80%, find the following:

$$CL =$$

$$\alpha =$$

$$\alpha/2 =$$

$$\text{Area to the left of } Z_{\alpha/2} =$$

$$\text{What is the critical value, } Z_{\alpha/2}?$$

b. If the confidence interval is based on a confidence level of 96%, find the following:

$$CL =$$

$$\alpha =$$

$$\alpha/2 =$$

$$\text{Area to the left of } Z_{\alpha/2} =$$

$$\text{What is the critical value, } Z_{\alpha/2}?$$