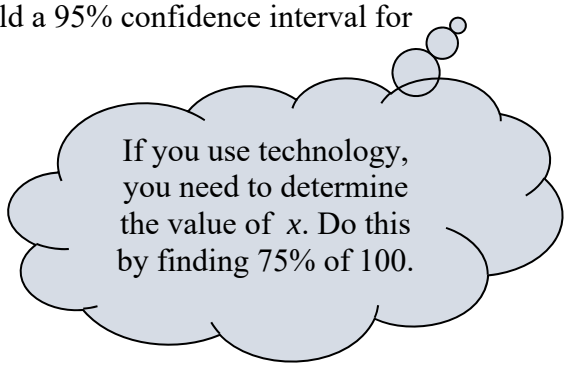
Confidence Intervals and the Sample Size NAME:

You may find these intervals by hand or use technology (STAT > TESTS > A:1-PropZInt… on the calculator). For each part, complete the sentence, writing your intervals as percents, rounded to the nearest tenth of a percent.

In a (fictitious) survey of American households, 75% of the households claimed to have contributed to charity in the past year.

a.) In words, describe the population and the parameter in which we are interested?

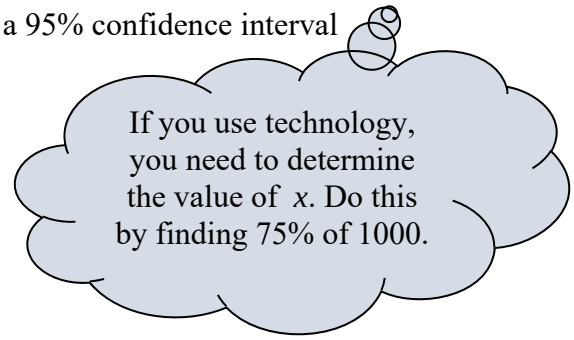
b.) If the survey had involved 100 households, what would a 95% confidence interval for this parameter be?



We are _____ confident that the true percent of American households who have

contributed to charity in the past year is between _____ and _____.

c.) If the survey had involved 1000 households, what would a 95% confidence interval for this parameter be?



We are _____ confident that the true percent of American households who have

contributed to charity in the past year is between _____ and _____.

d.) If the survey had involved 5000 households, what would a 95% confidence interval for this parameter be?

We are _____ confident that the true percent of American households who have

contributed to charity in the past year is between _____ and _____.

e.) If the survey had involved 10,000 households, what would a 95% confidence interval for this parameter be?

We are _____ confident that the true percent of American households who have

contributed to charity in the past year is between _____ and _____.

f.) Comment on the length of the intervals as sample size increases.