

## Answer on Question #84190 – Math – Statistics and Probability

### Question

From the list of 500 names and addresses, 100 names are selected without replacement and 25 wrong addresses were found. Identify the population and estimate the total no. of addresses needing correction in the list. Also estimate the standard error of the estimate.

### Solution

Population: 500 names and addresses.

Total number of addresses needing correction is estimated to be

$$n = Np = 500 * \frac{25}{100} = 125.$$

The standard error of the estimate:

$$SE = \sqrt{Np(1 - p)} = \sqrt{500 * 0.25 * 0.75} = 9.68.$$