

# Sampling Experiments

The sampling experiments described on LAB page 276 are sometimes called the Capture-Recapture method. This method is one way scientists estimate the size of populations of animals.

As an experiment, Jake used this method to estimate the number of children in his neighborhood. On Tuesday, after school, he spent a half hour watching all the children who entered the toy shop near his school. Forty-one children entered. Jake knew them all, and wrote down their names. On Wednesday, he went back to the toy shop at the same time, and watched again. About the same number of children entered the store in the half-hour that he watched, but only ten of them were on his list.

- 1 What estimate would you make, based on these numbers?

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- 2 Then Jake thought about it some more and decided his experiment might not be giving him reliable numbers. His first thought was that perhaps children who had gone one day might be less likely to go the very next day. If that is true, how should he change his estimate?

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- 3 Then he wondered if there were many children who simply **never** go to the toy store. If there are, how should that change his estimate of the number of children in his community?

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