

Producing Data

Project 6 JELLYBEAN

How many jellybeans are in the bowl?

1. Make a guess of the number of jellybeans in the bowl and write your guess here.
2. Now it's time to do some "fishing". Each person in the room may use a utensil (the fishing pole) provided by the teacher to remove some jellybeans from the jar. (The total amount removed cannot exceed the number of black jellybeans that you have available.)
3. Replace the jellybeans that were removed with the same number of black jellybeans. (This is similar to the procedure of Wildlife Conservation Agents when the capture, tag, and release wildlife.) Write the number of replacement here.
4. Stir the jellybeans to mix in the black ones.
5. Use the fishing device to remove a sample of the jellybeans from the bowl as in an SRS.
6. Count the jellybeans that you have captured.
in total _____ # of black _____
7. Return your sample to the jar and have each person or group repeat the same sampling method.
8. Write a proportion and solve for the total number of jellybeans in the jar.

9. Now let's see how close we are with our prediction. Everyone participate and divide up the total number of jellybeans and count them! Write down the total number of jellybeans here.

10. Having been through this process, use your knowledge to answer the following question. The Missouri Conservation Commission is to determine the size of the Canadian Geese population in the state of Missouri. You are to design a capture-recapture procedure they could use to estimate the size of the flock.