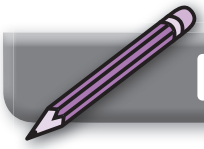
Name _____ Date _____

Kind of Bean Lab

Use the TIMS Laboratory Method to investigate the population of beans.



Draw

Draw a picture of the lab setup. Show the variables and the materials you will use.

1. What are the two main variables in your experiment?

_____ and _____

Collect

Collect the data. Use your scoop to take a sample from the container. Record the number of each kind of bean in the table.

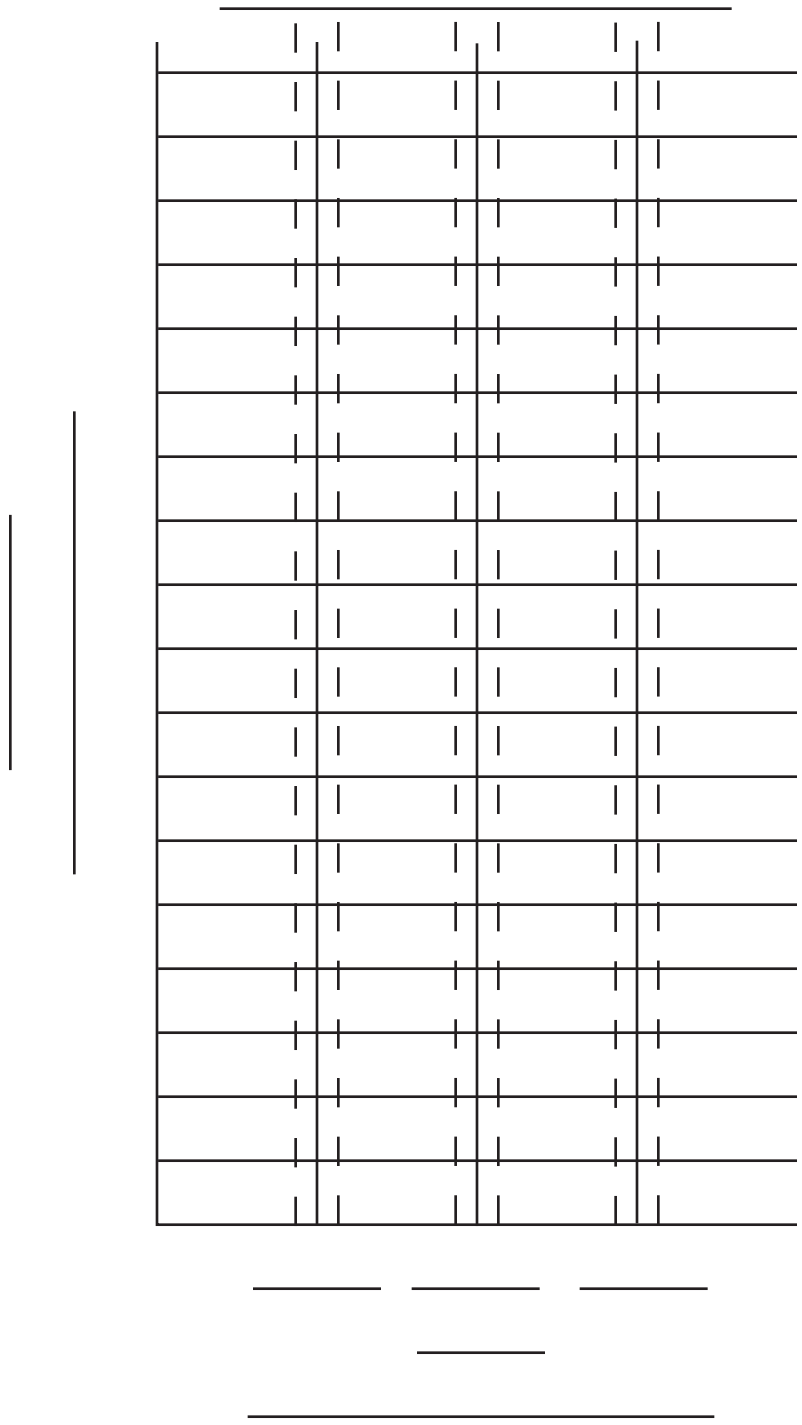
Kind of Bean

K Kind of Bean	*N* Number of Beans Pulled

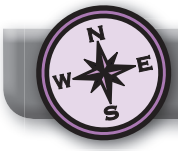
Name _____ Date _____

Graph

Make a bar graph of your results. Remember to label the graph.



Name _____ Date _____



Explore

Answer the following questions using your data table and graph.

2. A. What kind of bean is most common in your sample?

_____

B. How many do you have of this kind of bean? _____

3. A. What kind of bean is least common in your sample? _____

B. How many do you have of this kind of bean? _____

4. How many more of the most common beans do you have than the least common? Show or tell how you know.

5. What is the total number of beans in your sample? _____

6. Show or tell how you found the answer to Question 5.

Name _____ Date _____

A Second Sample

Check-In: Questions 7–11

7. You are going to collect a second sample with the same size scoop.

A. Predict which kind of bean will be the most common.

_____

B. Predict which kind of bean will be the least common.

_____

C. Show or tell how you decided.

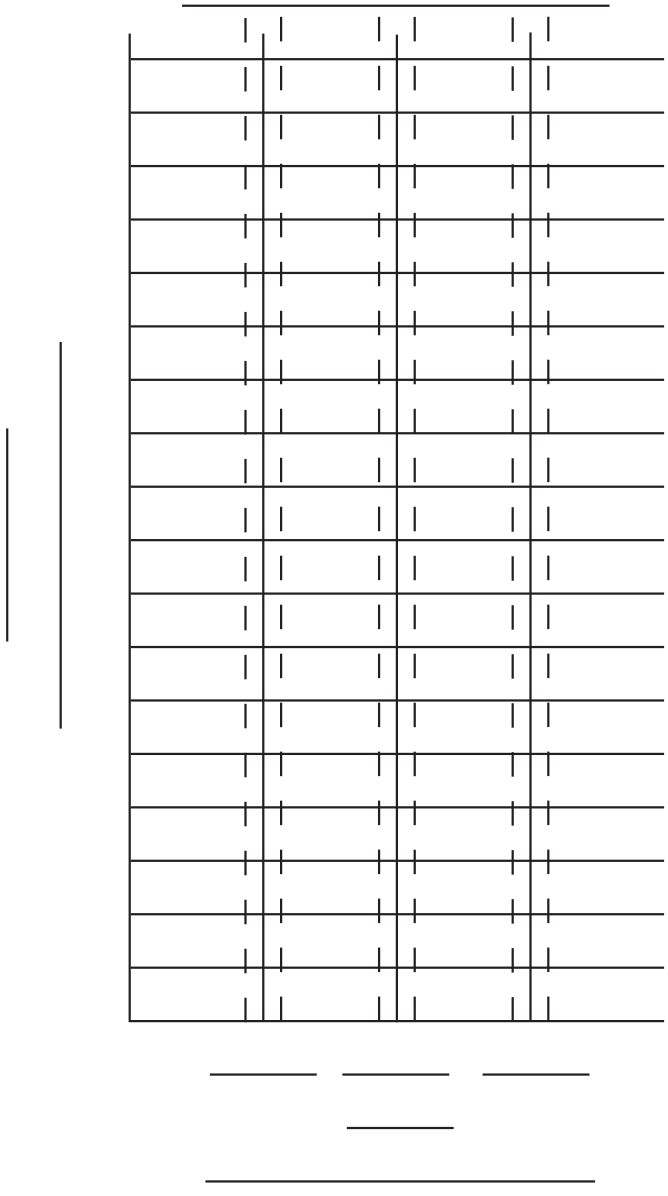
8. Collect a second sample with the same size scoop. Count the beans and record your data in the table.

Second Sample

K Kind of Bean	*N* Number of Beans Pulled

Name _____ Date _____

9. Graph your data.



10. A. What kind of bean is most common in this sample?

_____

B. What kind of bean is least common in this sample?

_____

Name _____ Date _____

11. Were your predictions in Question 7 correct? Why or why not?

Population Predictions

12. Use your data to make predictions about the bean population (all of the beans in the class container). Predict which bean is the most common and which bean is the least common. Tell why you think so.

13. Suppose you use a much larger scoop to take a sample.

A. How will the data in your data table change?

B. How will your graph change?

Name _____ Date _____

Kind of Bean Lab Check-In: Questions 7–11 Feedback Box	Expectation	Check In	Comments
Draw a scaled bar graph from a table. [Questions 8–9]	E2		
Read a table or scaled graph to find information about a data set. [Questions 10 A–B]	E3		
Make predictions and generalizations about a population from a sample using data tables and graphs. [Questions 7A–B and 11]	E4		

	Yes . . .	Yes, but . . .	No, but . . .	No . . .
MPE5. Show my work. I show or tell how I arrived at my answer so someone else can understand my thinking. [Question 7C]				