

Exploring Ratios with a Cup of Beans

NAME: _____

DATE: _____

- Fill in the first row of the table below with the information from your teacher about the number of beans in the cup.
- Scoop or pour a handful of beans from the cup for your first trial. Fill in the number of marked beans and the total number of beans in the row for Trial 1. After the beans are counted, put them back in the cup. Take a new handful for each trial. Record your results for Trials 2 to 6. Then, complete the last two columns of the table for Trials 1 through 6.
- Fill in trials 7 to 10 with the numbers that you determine are correct.

	NUMBER OF MARKED BEANS	TOTAL NUMBER OF BEANS	RATIO OF MARKED TO TOTAL	RATIO AS A DECIMAL
IN THE CUP				

TRIAL NUMBER	NUMBER OF MARKED BEANS IN THE HANDFUL	TOTAL NUMBER OF BEANS IN THE HANDFUL	RATIO OF MARKED TO TOTAL	RATIO AS A DECIMAL
1				
2				
3				
4				
5				
6				
AVERAGE RATIO OF TRIALS 1–6:				

COMPLETE EACH ROW BELOW WITH YOUR EXPECTED VALUE				
(7)		3		.667
(8)		30		.667
(9)	12			.667
(10)	26			.667

For Trials 1 to 6:

1. Compare your ratios from Trials 1 to 6 with the *actual* ratio given at the top of the table. Explain any differences.
2. Compare the average of your ratios from Trials 1 to 6 with the *actual* ratio given at the top of the table. Explain any differences.

For Rows 7 to 10:

3. Describe the process you used to find the values you entered in rows 7 to 10 in the table.
4. What work with fractions have you done before that resembles the work that you did in rows 7 to 10?