

Random sample experiment with tokens

1 Work assignments

1. Get together in groups.
2. Write your name in the table.
3. Each person in the group pulls a token and immediately puts it back in the cup.
If you pulled a red token, then write a 1 in the cell where the "red" row next to your name and the column with the number of the cup meet.
If you pulled a blue token, then write a 1 in the cell in the "blue" row.
4. Add the number of red tokens in the column and write the answer in the "red" cell in the last row of the table, "Total." Do the same thing for the blue tokens. Now go to the next cup and repeat steps 3 and 4.
5. Suggest ideas why the total numbers of red and blue tokens are so different in the five cups.
6. Fill in the missing words in the paragraph below the table using the terms **certain**, **possible**, **impossible**, **likely**, or **unlikely**.



Photo showing how the experiment is conducted.

2 Number of red and blue tokens in the cups

Name	Color of token	Cup 1	Cup 2	Cup 3	Cup 4	Cup 5
	Red					
	Blue					
	Red					
	Blue					
	Red					
	Blue					
	Red					
	Blue					
	Red					
	Blue					
Total	Red					
	Blue					

3 Cloze test

It is _____ to pull a red token from a cup that does not have any red tokens.

It is _____ to pull a red token from a cup that has only red tokens.

It is _____ to pull a blue token from a cup that has only red tokens.

It is _____ to pull a red token from a cup that has the same number of red and blue tokens.

It is _____ to pull a blue token from a cup that has more blue than red tokens.