

Data Table #1: Mass of Different Beans

Type of bean				
Description of bean				
Mass of beans & cup (g)				
Mass of cup (g)				

Show one set data calculations.

Calculation Data Table #2

Mass of beans (g)				
Average mass (g/bean)				
Relative mass (see formula in #5)				
# of beans in a relative mass if rel. mass was in grams				

Analysis:

1. If a *bag* is defined as the number of beans in 1.00 g of the lightest bean, how many beans are in a *bag*?
2. What statement can you make about the number of beans in a relative mass of each type of bean?
3. What statement can you make about the mass of a *bag* of beans whose relative mass is: 3.5? 2.6? 17?
4. Calculate the number of *bags* that can be made from 1000 beans.

5. If you wanted 1000 of the heaviest bean used in this experiment, how could you measure out that approximate number without counting individual beans?

6. Relate each type of bean to an element on the Periodic Table. Explain how you chose.

7. What is the relative mass of O compared to H? Show work.

8. How many moles can you make from 480 g of C?

9. How many atoms are in 4.0 g of H₂?

Connecting to Chemistry --use these ideas in your conclusion!)

