

2. To find the average mass of each colored bean, you divide:

a. $\frac{\text{Mass of dark brown beans}(\quad)}{\text{\# of dark brown beans}(\quad)} = \quad$ avg. mass of dark brown bean

b. $\frac{\text{Mass of white beans}(\quad)}{\text{\# of white beans}(\quad)} = \quad$ avg. mass of white beans

c. $\frac{\text{Mass of light brown beans}(\quad)}{\text{\# of light brown beans}(\quad)} = \quad$ avg. mass of light brown bean

d. $\frac{\text{Mass of dotted brown beans}(\quad)}{\text{\# of dotted brown beans}(\quad)} = \quad$ avg. mass of dotted brown bean

3. To find the percentage of each color (relative abundance) you divide:

a. $\frac{\text{\# of dark brown beans}(\quad)}{\text{Total \# of beans}(\quad)} \times 100 = \quad$ % dark brown

b. $\frac{\text{\# of white beans}(\quad)}{\text{Total \# of beans}(\quad)} \times 100 = \quad$ % white

c. $\frac{\text{\# of light brown beans}(\quad)}{\text{Total \# of beans}(\quad)} \times 100 = \quad$ % light brown

d. $\frac{\text{\# of dotted brown beans}(\quad)}{\text{Total \# of beans}(\quad)} \times 100 = \quad$ % dotted brown

4. To find the average mass of these 'isotopes' you multiply average mass of each colored bean by its *relative abundance* and add the results;

A. (% of dark brown beans \quad x average mass of Dark beans (\quad) = \quad

B. (% of white beans \quad x average mass of Dark beans (\quad) = \quad

C. (% of light brown beans \quad x average mass of Dark beans (\quad) = \quad

D. (% of dotted brown beans \quad x average mass of Dark beans (\quad) = \quad

Average mass of the beans (A+B+C+D) = \quad