Overhead Isotope Detector Worksheet

Data Table

Sphere	Impact Distance (mm)	Cord – *dA*	Angle *HdA*
A			
Average			
B			
Average			
C			
Average			

Post-Lab Questions and Calculations *(Use a separate sheet of paper to answer the following questions.)*

1. Calculate the deflected path radius for each of the three steel spheres.

2. If the mass of sphere B is assigned an arbitrary mass number of 8.00, calculate the relative masses of the other two "isotopes."

3. Assume that the three different size spheres represent isotopes of the same element, and that the relative abundance of each is as follows:

   Sphere 1 – 35%
   Sphere 2 – 7%
   Sphere 3 – 58%

   Based on these abundance values and your calculations of the relative masses of the isotopes, calculate the average atomic mass of the element.