

1. How many pm are in 20 nm?

2. The number under each element is a _____ of the _____ of all the isotopic masses.

3. There are two isotopes of Bromine, what is the % abundance of each.

The masses of each isotope are:

$$^{79}\text{Br} = 78.9183$$

$$^{81}\text{Br} = 80.9163$$

The weighted average is 79.9091

4. Complete the following table

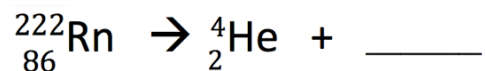
| Name of particle | Symbol | Mass | Charge |
|------------------|--------|----------------------|--------|
| Alpha | | 4 amu | |
| Beta | | $\frac{1}{1822}$ amu | |
| Gamma | | No mass | |
| Neutron | | 1 amu | |

5. What experiment used alpha particles?

6. Write the balanced nuclear reaction: carbon-14 is a beta emitter



7. What is the new element when Radon-222 emits an alpha particle?



8. What is the correct name for Fe_2O_3 ?

9. What is the correct formula for dinitrogen tetroxide?

10. What is the speed of a 98.2mph baseball in m/sec? (0.62 miles = km)

11. What is the formula of sodium nitrite?