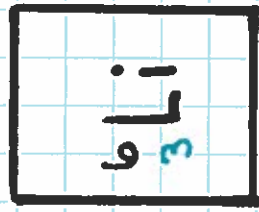
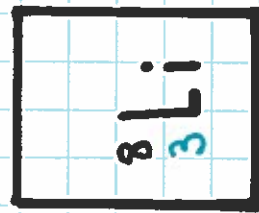


Isotopes:

atoms of the same element, but with more or less **neutrons**

If you change the number of neutrons, you change the **mass**.



Lithium-6

Lithium-7

Lithium-8

average atomic mass

The average atomic mass is the **weighted average** of all the isotopes of an element.

"Weighted" means some isotopes affect the average mass more — based on **% abundance**.

- What is the average atomic mass of element X? **35.453**
- What is element X? **Chlorine**

Isotope	Mass	% Abundance
^{35}X	34.969	75.77 %
^{37}X	36.966	24.23 %
		Move the .2 spaces left
		35.453

$$\begin{aligned} & 34.969 \times 0.7577 \\ & 36.966 \times 0.2423 \end{aligned}$$

The answer is closer to **35**.