1 Wave-particle duality

TODO: Find a way to make a scheme like the one on my notes. All it does is say that the atomic number is the number of electrons which is equals to the number of protons, and that the mass is the protons plus the neutrons.

1.1 Characteristics of a Wave

- Wave Lenght (λ) — Distance between two consecutive points of equal vibrational phase.

  TODO: Add pretty image of wave showing λ

$$1\mu m = 10^{-6}m$$

$$1nm = 10^{-9}m$$

$$1Å = 10^{-10}m$$

$$1pm = 10^{-12}m$$

- Frequency (ν) — Number of vibrations or complete cycles per unit of time.

$$1MHz = 10^{6}Hz$$

  TODO: Finish these

- Period (τ) — Duration of a cycle