

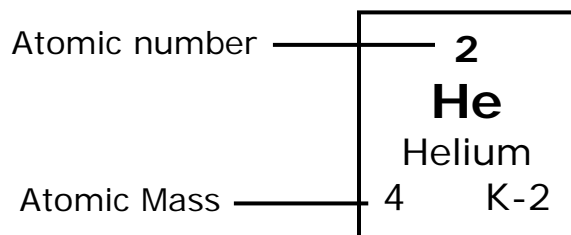
Name _____

Date ____ / ____ / ____

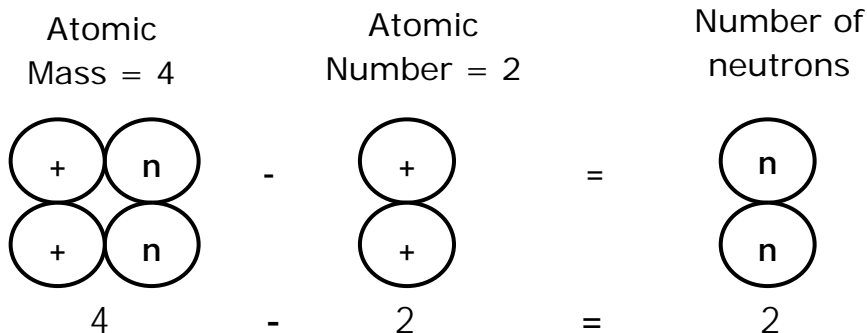
ATOMIC NUMBERS, PROTONS, NEUTRONS AND ELECTRONS

The number of protons in each atom of an element is its atomic number. The atomic number is also the number of electrons since atoms themselves are electronically neutral. Because neutrons and protons are almost the same mass, the total number of protons and neutrons in an atom is the atomic mass. Therefore, by subtracting the atomic number from the atomic mass you can calculate the number of neutrons.

This is why the mass number and atomic number, but not the number of neutrons, is shown in the periodic table entries such as the one for helium shown below. The diagram below shows how to calculate the number of neutrons from the table's entry.



Example: helium atom



Use this reasoning and the information provided below, to determine the missing values in the chart below.

ELEMENT	SYMBOL	ATOMIC NUMBER	ATOMIC MASS	PROTONS	NEUTRONS	ELECTRONS
Helium	He	2	4	2		
Nitrogen	N	7	14			7
Carbon	C	6	12			
Sodium	Na	11	23			
Iron	Fe	26			30	
Copper	Cu		64	29		
Silver	Ag	47	108		61	