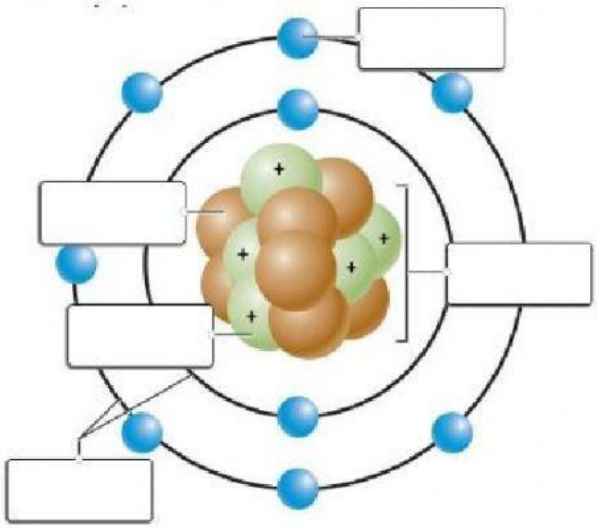
Introduction to Atoms Worksheet

Instructions: Match the vocabulary word with the correct definition

Word	Definitions
Atoms	Negatively charged particles outside the nucleus of an atom
Protons	Number of protons in an atom
Atomic Number	Neutral particles found in nucleus of an atom
Mass number	The smallest unit of matter
Isotopes	A substance composed of one type of atom
Electrons	Positively charged particles in the nucleus of an atom
Neutrons	The number of protons plus neutrons in the nucleus of an atom
Elements	Variations of elements that have the same number of protons but different numbers of neutrons

Label the diagram of the atom below using the words on the right.



- Energy Shells
- Electrons
- Protons
- Neutrons
- Nucleus

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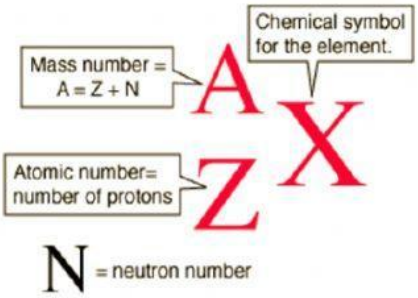
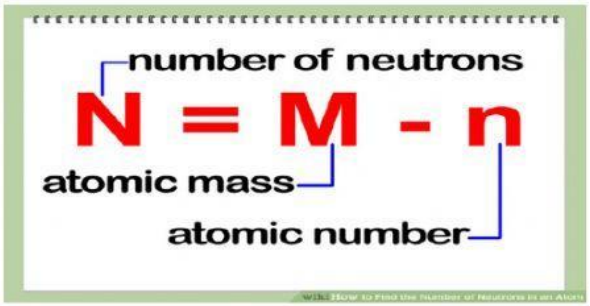
Nuclear Notation





Complete the table below to show the number of protons neutrons and electrons in the elements below.

Element	Nuclear Notation	Number of		
		Protons (Z)	Neutrons (A-Z)	Electrons
Nitrogen	$^{14}_{7}N$	7	14-7=7	7
Aluminum	$^{27}_{13}Al$			
Chlorine	$^{37}_{17}Cl$			

Calculate the amount of neutrons in the following elements

(a) $^{37}_{17}Cl$

(b) $^{31}_{15}P$

(c) $^{24}_{12}Mg$

(d) $^{28}_{14}Si$

(e) $^{16}_{8}O$

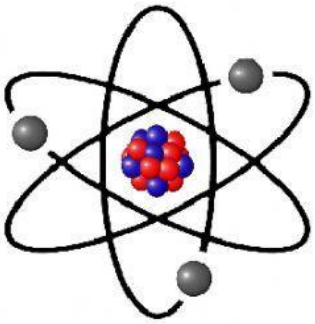
20 neutrons

12 neutrons

14 neutrons

16 neutrons

8 neutrons



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