

Atomic Structure Worksheet

PART A – SUBATOMIC PARTICLES

The table below contains information about several elements. In each case, enough information has been provided for you to fill in the blanks. Assume all atoms are neutral.

Isotope Name	Nuclear Symbol	Atomic Number	Mass Number	# of Protons	# of Electrons	# of Neutrons
1. calcium-40						
2.		12	24			
3.				1		2
4.	$^{197}_{79}\text{Au}$					
5.					26	30
6.			201	80		
7.		17				18

PART B – AVERAGE ATOMIC MASS

8. Calculate the average atomic mass for neon if its abundance in nature is 90.5% neon-20, 0.3% neon-21, and 9.2% neon-22.

9. Calculate the average atomic mass of silver if 13 out of 25 atoms are silver-107 and 12 out of 25 atoms are silver-109.

10. Distinguish between mass number, relative atomic mass, and average atomic mass.