

## Subatomic Particles Worksheet

Name \_\_\_\_\_

Period \_\_\_\_\_

Use the first 2 rows of the following chart to determine the relationships used to calculate values for the missing blanks in the remainder of this worksheet. You will need to use your periodic table as a guide.

Element	Nuclear Symbol	Atomic #	Mass #	Protons (p <sup>+</sup> )	Neutrons (n <sup>0</sup> )	Electrons (e <sup>-</sup> )
Hydrogen	<sup>4</sup> H	1	4	1	3	1
Lithium	<sup>8</sup> Li	3	8	3	5	3

In the space provided, show the relationships and equations needed to calculate the following:

Nuclear Symbol (show what the top and bottom number represent) =

Atomic Number =

Mass Number =

Protons =

Neutrons =

Electrons =

In the table above, the **mass number** for lithium is 8. An alternate symbol for this isotope of lithium is **Li-8**. How do you know the atomic number for this isotope?

---

Now it's your turn!

Element	Nuclear Symbol	Atomic #	Mass #	Protons (p <sup>+</sup> )	Neutrons (n <sup>0</sup> )	Electrons (e <sup>-</sup> )
	C		12			
	O				9	
		15	31			
		18			20	

Element	Nuclear Symbol	Atomic #	Mass #	Protons (p <sup>+</sup> )	Neutrons (n <sup>0</sup> )	Electrons (e <sup>-</sup> )
			23	11		
		53	127			
				13	14	
			112	55		
					20	19
					21	18
			149			74
					22	20
		82			126	
			137	56		
	Fe				30	
					145	92

**Average Atomic Mass-found only on the Periodic Table!**

Look at the average atomic mass on your periodic table. What is the average atomic mass for

Hydrogen? \_\_\_\_\_

Lithium? \_\_\_\_\_

How many decimal places are shown on your periodic table? \_\_\_\_\_

What is the difference between the **average atomic mass** on the periodic table and the **mass numbers** listed on this worksheet?

---



---



---