

Exercise 1 - Counting Subatomic Particles

1. Use the periodic table to find the number of protons, neutrons, and electrons for atoms of the following elements.

Name of Element	Element Symbol	Mass Number	Atomic Number	Protons	Neutrons	Electrons
Boron	B	11	5	5	6	5
Sodium		24	11			
Gallium				31	37	
Copper			29		35	
	Pb	207				
Thallium		204	81			
	H				0	
Carbon		12				
	N			7		
	Ba					56
				2		2
Calcium						
	Si					14
Argon			18			
	Mg			12		12

2. Based on your experience with the periodic table, explain which subatomic particle can be used to identify an element.
3. Quantities of which subatomic particles appear to always be the same?
4. What does your answer to question #3 tell us about the total/'net' charge of an atom?
5. What conclusion can be drawn about the total or 'net' charge of the nucleus of an atom?