

Name \_\_\_\_\_

Atomic Structure  
Honors Chemistry

Complete the following chart. Do NOT get the mass number off the periodic table. You must calculate it.

Substance	Symbol	Atomic Number	Mass number	Number of protons	Number of neutrons	Number of electrons
Lithium		3	7			
Titanium		22			25	
Gallium		31	65			
Cadmium			112			48
Silicon				14	15	
Actinium			227			89
Polonium		84	209			
Krypton					48	36
Molybdenum			96	42		
Lead				82	126	
Chromium		24	52			
Argon				18	22	
Boron		5			6	
Chlorine			35	17		
Iodine		53	127			
Bromine			80	35		35
Silver			107	47		
Potassium					20	19
Arsenic			75			33
Yttrium		39	88			

## Ions

Substance	Symbol	Atomic Number	Mass number	Number of protons	Number of neutrons	Number of electrons
Calcium	Ca <sup>2+</sup>	20			21	
Copper	Cu <sup>+</sup>	29	63			
Sulfide	S <sup>2-</sup>		32	16		
Chloride	Cl <sup>-</sup>	17			18	
Potassium	K <sup>+</sup>	19			21	
Iron	Fe <sup>3+</sup>	26	56			
Iodide	I <sup>-</sup>	53	127			

In 200 atoms of copper, 109 atoms have a mass of 64, and 91 atoms have a mass of 63. Determine the atomic mass that would be reported. Show work to receive credit.