

Atomic Structure

Name - _____

1.) When dealing with a full atomic symbol as in the example below, what do we call the three letters - a,



Answer - a.) atomic mass b.) atomic number c.) ionic charge

2.) Using the periodic table for help, fill in the following chart for the sub-parts of the following atoms.

Symbol	Atomic Mass	Atomic Number	Number of Protons	Number of Neutrons	Number of Electrons	Full Atomic Symbol
Ar	36	18	18	18	18	${}_{18}^{36}\text{Ar}$
Ag	108	47	47	61	47	${}_{47}^{108}\text{Ag}$
Al	27	13	13	14	13	${}_{13}^{27}\text{Al}$
As	75	33	33	42	33	${}_{33}^{75}\text{As}$
At	210	85	85	125	85	${}_{85}^{210}\text{At}$
Au	197	79	79	118	79	${}_{79}^{197}\text{Au}$
X ²⁺ = Ac	227	89	89	138	87	${}_{89}^{227}\text{Ac}^{2+}$
X ³⁺ = Am	243	95	95	148	92	${}_{95}^{243}\text{Am}^{3+}$

3.) Using the periodic table for help, fill in the following chart for the sub-parts of the following isotopes.

Symbol	Number of Protons	Number of Neutrons	Number of Electrons	Full Atomic Symbol
Cl-36	17	19	17	${}_{17}^{36}\text{Cl}$
Cu-62	29	33	29	${}_{29}^{62}\text{Cu}$
Co-61	27	34	27	${}_{27}^{61}\text{Co}$
Cr-49	24	25	24	${}_{24}^{49}\text{Cr}$
Ca-42	20	22	20	${}_{20}^{42}\text{Ca}$
Cd-108	48	60	48	${}_{48}^{108}\text{Cd}$
X ²⁺ = Cs-135	55	80	53	${}_{55}^{135}\text{Cs}^{2+}$