

Name _____

Class _____

Date _____

Atoms, Ions & Isotopes

For each substance listed below, you have been given enough information to fill in all the blanks. Then decide if the atom is an isotope, a positive ion, a negative ion or a neutral atom.

Substance	Symbol	Atomic Number	Mass Number	Number of Protons	Number of Neutrons	Number of Electrons	Isotope, Neutral Atom or Ion,
Aluminum	Al		27	13		13	
Bromine		35	80		45	36	
Uranium	U	92			146	92	
Helium	He	2	4				
Helium	He	2	5			2	
Lithium		3	7			2	
Tungsten	W		184		110	74	
Xenon					79	54	Neutral Atom
Magnesium	Mg		24	12			Positive 2 ion
Carbon		6			6		Neutral Atom
Carbon	C		14	6	8		
Nitrogen		7	14				

Fill in the isotope names and any missing information, including isotope numbers from the chart. Use your periodic table and the information provided.

# of protons	25	
# of neutrons	17	15
# of electrons		

# of protons	32	
# of neutrons	30	32
# of electrons		

# of protons		
# of neutrons	48	51
# of electrons		46

# of protons		
# of neutrons	113	111
# of electrons	55	

	Iron-	Iron-
# of protons		
# of neutrons	27	30
# of electrons		

	Iodine-	Iodine-
# of protons		
# of neutrons	32	35
# of electrons		

	Germanium-	Germanium-
# of protons		
# of neutrons	33	36
# of electrons		

	-10	-12
# of protons		6
# of neutrons		
# of electrons	6	

	-22	-25
# of protons		
# of neutrons		
# of electrons	11	

	-54	-56
# of protons	24	
# of neutrons		
# of electrons		