## Introduction to Isotopes

Chemistry

Name:		
Period:	Date:	

Isotope Symbols		
Mass Number—A	(# of protons + # of neutrons)	
Atomic Number—Z	Element  (# of protons)	

- 1. What is an isotope?
- 2. In the word representation of an isotope, Element-99, what does the number represent?
- 3. How do you find the protons, electrons, and neutrons in different isotopes?

For each of the following isotopes, write the number of protons, neutrons, and electrons. Write the Symbol Representation of the isotope.

	Nitrogen-15	Nitrogen-20
Symbol Representation		
# of protons		
# of neutrons		
# of electrons		

	Chromium-58	Chromium-63
Symbol Representation		
# of protons		
# of neutrons		
# of electrons		

	Sulfur-23	Sulfur-25
Symbol Representation		
# of protons		
# of neutrons		
# of electrons		

	Carbon-12	Carbon-16
Symbol Representation		
# of protons		
# of neutrons		
# of electrons		

	Sodium-12	Sodium-20
Symbol Representation		
# of protons		
# of neutrons		
# of electrons		

	Helium-3	Helium-4
Symbol Representation		
# of protons		
# of neutrons		
# of electrons		

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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		

	Selenium-30	Selenium-35
# of protons		
# of neutrons		
# of electrons		

# of protons		
# of neutrons	.0	_
	48	51
# of electrons		
		46

# of protons		
" of process	32	
# of neutrons		
	30	32
# of electrons		

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

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

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

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

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

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