

## Isotopes Worksheet for Chem 171

1. What is an isotope? \_\_\_\_\_  
\_\_\_\_\_
2. What does the number next to isotopes signify? \_\_\_\_\_  
\_\_\_\_\_
3. How can you tell isotopes apart? \_\_\_\_\_  
\_\_\_\_\_

For each of the following isotopes, fill in the missing information.

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

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

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

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

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

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

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

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

# of protons			# of protons		
# of neutrons	48	51	# of neutrons	113	111
# of electrons		46	# of electrons	55	
	Iron-	Iron-		Iodine-	Iodine-
# of protons			# of protons		
# of neutrons	27	30	# of neutrons	32	35
# of electrons			# of electrons		
	Germanium-	Germanium-		-10	-12
# of protons			# of protons		6
# of neutrons	33	36	# of neutrons		
# of electrons			# of electrons	6	
	-22	-25		-54	-56
# of protons			# of protons	24	
# of neutrons			# of neutrons		
# of electrons	11		# of electrons		