

NAME: \_\_\_\_\_

**Reminders:**

1. In a neutral atom the number of protons equals the number of electrons.
2. An atom can NEVER gain or lose protons
3. The number of protons equals the atomic number

# Ion Practice Set

1. What is an ion?

2. What does the number next to the ions signify?

**Complete the following table, using the periodic table in the back of your book.**

	ELEMENT NAME	ION SYMBOL	NUMBER OF PROTONS	NUMBER OF ELECTRONS	NUMBER OF ELECTRONS LOST OR GAINED
ex	Fluorine	F <sup>-</sup>	9	10	gained one
1	Iodine	I <sup>-</sup>	53	54	Gained one
2	Sulfur	S <sup>2+</sup>	16	18	gained two
3	potassium	K <sup>-</sup>	19	18	lost one
4	Calcium	Ca <sup>+2</sup>	20	18	Lost two
5	Bromine	Br	35	36	Gain one
6	Strontium	Sr <sup>+2</sup>	38	36	Lost two
7	Hydrogen	H <sup>+</sup>	1	0	Lost one
8	Oxygen	O <sup>2-</sup>	8	10	gained two
9	Magnesium	Mg <sup>2+</sup>	12	10	lost two
10	aluminum	Al <sup>3+</sup>	13	10	Lost three
11	Selenium	Se <sup>2-</sup>	34	36	Gained two
12	Hydrogen	H <sup>-</sup>	1	2	Gained one
13	lithium	Li <sup>+</sup>	3	2	lost one
14	Rubidium	Rb <sup>+</sup>	37	36	Lost one
15	Chlorine	Cl <sup>-</sup>	17	18	Gained one

NAME: \_\_\_\_\_

	Cesium-168	Cesium-133	Germanium-62	Germanium-64
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# Isotopes Practice Set

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, write the number of protons, neutrons, and electrons.**

	Chromium-58	Chromium-63
# of protons	24	24
# of neutrons	34	39
# of electrons	24	24

	Carbon-12	Carbon-16
# of protons	6	6
# of neutrons	6	10
# of electrons	6	6

	Nitrogen-15	Nitrogen-20
# of protons	7	7
# of neutrons	8	13
# of electrons	7	7

	Sulfur-23	Sulfur-25
# of protons	16	16
# of neutrons	7	9
# of electrons	16	16

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

	Iodine- 85	Iodine- 88
# of protons	53	53
# of neutrons	32	35
# of electrons	53	53

	Iron- 53	Iron- 56
# of protons	26	26
# of neutrons	27	30
# of electrons	26	26

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

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