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| Review (1 of 2 ) EHS Cλ3MIs+rγ Mr. Genest |  | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. How many elements are there in Group 1?
2. Which element in Period 4 has the largest radius?
3. For a neutral atom of fluorine [in the ground state],
	1. How many electrons should it have? \_\_\_\_\_\_\_\_\_\_

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| * 1. write the boxes and arrows electron diagram
 | * 1. write the shorthand abbreviation of the electron diagram
 |
| * 1. write a Bohr circle and nucleus diagram
 | * 1. write the shorthand for the Bohr diagram
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1. For a neutral atom of magnesium [in the ground state],
	1. How many electrons should it have? \_\_\_\_\_\_\_\_\_\_

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| * 1. write the boxes and arrows electron diagram
 | * 1. write the shorthand abbreviation of the electron diagram
 |
| * 1. write a Bohr circle and nucleus diagram
 | * 1. write the shorthand for the Bohr diagram
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1. For the second element in Period 6,
	1. The name of this element is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. If this neutral element lost electrons it would become ( positive / negative ).
	3. Predict the oxidation state of this element after it forms its ion \_\_\_\_\_\_\_\_
2. When neutral $$ changes into an ion, it will be a ( cation / anion ) with a charge of \_\_\_\_\_\_.
3. $$ has \_\_\_\_\_\_\_ protons \_\_\_\_\_\_\_ electrons \_\_\_\_\_\_\_ neutrons
4. the ion version of the above atom has \_\_\_\_\_\_\_ protons \_\_\_\_\_\_\_ electrons \_\_\_\_\_\_\_ neutrons
5. Write the electron configuration (letters and numbers, starting with 1s2 2s2…, , no boxes and arrows) for a Ca2+ ion
6. Which element in Period 4 is the easiest to steal an e- from?
7. Circle one or more elements that would be expected to have very similar properties to oxygen:

Nitrogen Osmium Sulfur Fluorine

1. In each blank write <, =, or > to describe the amount of electrons in the two things:
2. a neutral sodium atom \_\_\_\_\_\_\_\_ a sodium ion
3. a Sr atom \_\_\_\_\_\_\_\_ a Sr2+ ion

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| 1. Which one of these series of drops would most likely give off only infrared light?

Lyman / Balmer / Paschen1. Which one of these series of drops would most likely give off only visible light?

Lyman / Balmer / Paschen1. Which one of these series of electron drops would most likely give off only ultraviolet light?

Lyman / Balmer / Paschen1. These series of energy transitions are named for their discoverers. Which emission series was probably the most dangerous to be viewing without eye protection?

Paschen Balmer Lyman |  |