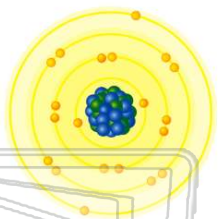




Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

1 Which element has an atom with the **electron configuration 2-8-8-2**?

- A Mg
- B Ni
- C Ca
- D Ge



2 **Arsenic** and **silicon** are similar in that they both

- A have the same ionization energy
- B have the same covalent radius
- C are transition metals
- D are metalloids

3 Which statement explains why the **radius** of a **lithium atom** is larger than the radius of a **lithium ion**?

- A Metals lose electrons when forming an ion.
- B Metals gain electrons when forming an ion.
- C Nonmetals lose electrons when forming

4 The atoms of the elements in **Group 2** have the **same**

- A mass number
- B atomic number
- C number of protons
- D number of valence electrons

4	Be
12	Mg
20	Ca
38	Sr
56	Ba



## PREVIEW

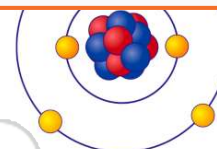
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7

- A H<sub>2</sub>O
- C H<sub>2</sub>S
- D H<sub>2</sub>



- B He
- C C
- D Ca



9 When the elements in **Group 1** are considered in order from **top to bottom**, each successive element at standard pressure has

- A a higher melting point and a higher boiling point
- B a higher melting point and a lower boiling point
- C a lower melting point and a higher boiling point
- D a lower melting point and a lower boiling point

10 What is the total number of **valence electrons** in a **fluorine atom** in the ground state?

- A 5
- B 2
- C 7
- D 9

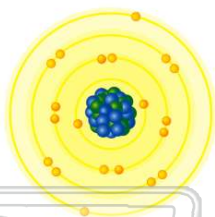
9
<b>F</b>
Fluorine



## ANSWER KEY

Which element has an atom with the **electron configuration 2-8-8-2**?

- A Mg
- B Ni
- C Ca
- D Ge



(c)

**Arsenic** and **silicon** are similar in that they both

- A have the same ionization energy
- B have the same covalent radius
- C are transition metals
- D are metalloids

(d)

Which statement explains why the **radius** of a **lithium atom** is larger than the radius of a **lithium ion**?

- A Metals lose electrons when forming an ion.
- B Metals gain electrons when forming an ion.
- C Nonmetals lose electrons when forming an ion.

(a)

The atoms of the elements in **Group 2** have the **same**

- A mass number
- B atomic number
- C number of protons
- D number of valence electrons

(d)

4	Be
	Beryllium
12	Mg
	Magnesium
20	Ca
	Calcium
38	Sr
	Strontium
56	Ba
	Barium
88	



## PREVIEW

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D H<sub>2</sub>



D Ca



When the elements in **Group 1** are considered in order from **top to bottom**, each successive element at standard pressure has

- A a higher melting point and a higher boiling point
- B a higher melting point and a lower boiling point
- C a lower melting point and a higher boiling point
- D a lower melting point and a lower boiling point

(d)

What is the total number of **valence electrons** in a **fluorine atom** in the ground state?

- A 5
- B 2
- C 7
- D 9

(c)

