1. Atoms lose, gain, or share electrons and become as chemically stable as

   A. an electron.

   B. an ion.

   C. a metal.

   D. a noble gas.

LIVEWORKSHEETS

2. Which is the correct electron dot diagram for boron, one of the group 13 elements?

A.

B.

C.

D.

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3. If an electron transfers from one atom to another atom, what type of bond will most likely form?

A. covalent

B. ionic

C. metallic

D. polar

LIVEWORKSHEETS

4. What change would make an atom represented by this diagram have the same electron arrangement as a noble gas?

A. gaining two electrons
B. gaining four electrons
C. losing two electrons
D. losing four electrons

LIVEWORKSHEETS

5. What would make bromine, a group 17 element, more similar to a noble gas?

A. gaining one electron

B. gaining two electrons

C. losing one electron

D. losing two electrons

LIVEWORKSHEETS

6. Which would most likely be joined by an ionic bond?

   A. a positive metal ion and a positive nonmetal ion

   B. a positive metal ion and a negative nonmetal ion

   C. a negative metal ion and a positive nonmetal ion

   D. a negative metal ion and a negative nonmetal ion

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7. Which group of elements on the periodic table forms covalent compounds with other nonmetals?

A. group 1

B. group 2

C. group 17

D. group 18

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8. Which best describes an atom represented by this diagram?

He

A. It is likely to bond by gaining six electrons.

B. It is likely to bond by losing two electrons.

C. It is not likely to bond because it is already stable.

D. It is not likely to bond because it has too few electrons.

LIVEWORKSHEETS

9. How many dots would a dot diagram for selenium, one of the group 16 elements, have?

A. 6

B. 8

C. 10

D. 16

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