

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.



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

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

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

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

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

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



- 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.

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