

## Mild Bonding Practice

Name: \_\_\_\_\_

Date: \_\_\_\_\_

- Which pair of elements form an ionic bond with each other?  
A. KCl    B. ICl    C. PCl    D. HCl
- Which substance is an ionic solid?  
A. LiCl    B. HCl    C. Ne    D. Fe
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A. LiCl    B. HCl    C. Ne    D. Fe
- Which compound contains ionic bonds?  
A. NaBr(s)                      B. HBr(g)  
C. C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>(s)                  D. CO<sub>2</sub>(g)
- Which bond has the greatest ionic character?  
A. H-Cl    B. H-F    C. H-O    D. H-N
- Which kind of bond is formed when two atoms share electrons to form a molecule?  
A. ionic                              B. metallic  
C. electrovalent                  D. covalent
- One atom of A forms a coordinate covalent bond with one atom of B. This bond could have been formed by an atom of B  
A. sharing two electrons belonging to an atom of A  
B. sharing only one electron belonging to an atom of A  
C. transferring two electrons to an atom of A  
D. transferring only one electron to an atom of A

9. Energy is released when the atoms of two elements bond to form a compound. Compared to the total potential energy of the atoms before bonding, the total potential energy of the atoms after bonding is

- A. lower and the compound formed is stable
- B. lower and the compound formed is unstable
- C. higher and the compound formed is stable
- D. higher and the compound formed is unstable

10. Which element is composed of atoms that can form more than one covalent bond with each other?

- A. hydrogen
- B. helium
- C. carbon
- D. calcium

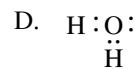
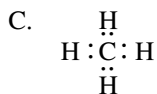
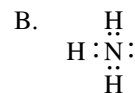
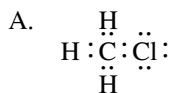
11. Which type of chemical bond is formed between two atoms of bromine?

- A. metallic
- B. hydrogen
- C. ionic
- D. covalent

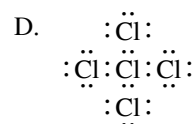
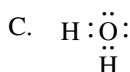
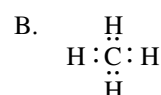
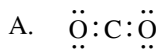
12. The P-Cl bond in a molecule of  $\text{PCl}_3$  is

- A. nonpolar covalent
- B. polar covalent
- C. coordinate covalent
- D. electrocovalent

13. Which electron dot formula represents a nonpolar molecule?



14. Which electron dot formula represents a polar molecule?



15. The bond between hydrogen and oxygen in a water molecule is classified as

- A. ionic and nonpolar
- B. ionic and polar
- C. covalent and nonpolar
- D. covalent and polar

16. Which formula represents a molecule with the most polar bond?

- A. CO
- B. NO
- C. HI
- D. HCl

1.  
Answer: A
2.  
Answer: A
3.  
Answer: A
4.  
Answer: A
5.  
Answer: A
6.  
Answer: B
7.  
Answer: D
8.  
Answer: A
9.  
Answer: A
10.  
Answer: C
11.  
Answer: D
12.  
Answer: B
13.  
Answer: C
14.  
Answer: C
15.  
Answer: D
16.  
Answer: D