1. What compound has the chemical formula MgI2 ?
   1. di-iodide magnesium
   2. iodide(II) magnesium
   3. magnesium iodide
   4. magnesium(I) iodine(II)

**C.7.A Readiness**

1. When ionic compounds are named, the name of a monatomic anion will end in which of the following suffixes?
2. –ic
3. –ite
4. –ate
5. ide

**C.7.A Readiness**

1. What is the correct name for the base whose chemical formula is Cu(OH)2 ? 7A
   1. copper hydroxide
   2. copper di-hydroxide
   3. copper (II) hydroxide
   4. Copper (IV) hydroxide

**C.7.A Readiness**

1. According to this information, what is the chemical formula for aluminum sulfate?
2. AlSO4
3. Al2(SO4)3
4. Al3(SO4)2
5. Al6SO4

**C.7.B Readiness**

1. Which is the correct formula for dinitrogen pentoxide?
   1. N4O
   2. NO2
   3. N2O5
   4. NO4

**C.7.B Readiness**

1. Carbon dioxide is a compound that forms with the combustion of carbon in the presence of oxygen. Electron-dot formulas are used to model the bonds that form. Which of these is the electron-dot formula for carbon dioxide?



**C.7.C Readiness**

1. Which Lewis electron-dot diagram represents calcium oxide?



F. (1)

G. (2)

H. (3)

J. (4)

**C.7.C Readiness**

1. Given a formula for oxygen:

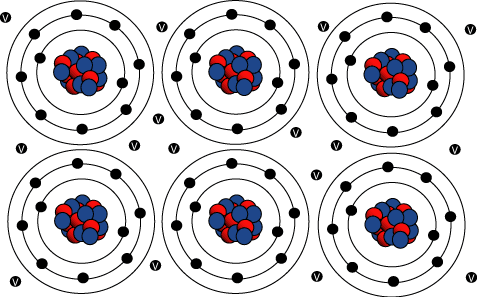


What is the total number of electrons shared between the atoms represented in this formula?

* 1. 1
  2. 2
  3. 8
  4. 4

**C.7.C Readiness**

1. Which of the following is **NOT** true of metallic bonding in this sample of Aluminum?



1. These ions repel each other but are held together in the block because the negative electrons are attracted to the positively charged ions.
2. Each ion of Aluminum has 4 valence electrons.
3. A result of the sharing of electrons is the cations arrange themselves in a regular pattern. This regular pattern is a crystalline structure of metal.
4. In the crystal lattice, atoms are packed closely together to maximizing conductivity.

**C.7.D Supporting**

1. Metals are malleable and ductile. What do these properties indicate about the bonds that hold metal atoms together?
   1. Metallic bonds are very weak.
   2. The bonds between metals are easily broken by heat.
   3. Metal atoms do not ionize when they form metallic bonds.
   4. The bonding is the same in all directions throughout the metal.

**C.7.D Supporting**

1. Which of the following pairs of elements would form a substance that is held together by metallic bonds?
2. Sodium and chlorine
3. Magnesium and sulfur
4. Copper and zinc
5. Lead and nitrogen

**C.7.D Supporting**

1. What physical property of materials depends on the ability of electrons to move easily?
   1. Solubility in water
   2. Electrical conductivity
   3. Low melting point
   4. brittleness

**C.7.D Supporting**

1. Based on VSEPR, predict the shape of a molecule of carbon tetrachloride, CCl.
2. Bent
3. Trigonal pyramidal
4. Trigonal planar
5. tetrahedral

**C.7.E Supporting**

1. Using VSEPR and the periodic table, predict the shape of a molecule of antimony tribromide, SbBr.
   1. Bent
   2. Trigonal pyramidal
   3. Trigonal planar
   4. tetrahedral

**C.7.E Supporting**

1. Based on VSEPR, predict the shape of a molecule of hydrogen sulfide, HS.
2. Bent
3. Trigonal pyramidal
4. Trigonal planar
5. tetrahedral

**C.7.E Supporting**

1. What is the shape of the ammonium ion, (NH)+, according to VSEPR?
   1. Bent
   2. Trigonal pyramidal
   3. Trigonal planar
   4. tetrahedral

**C.7.E Supporting**

1. What is the name of the compound shown by the formula PO?
2. Phosphorus oxide
3. Diphosphorus oxide
4. Phosphorus pentaoxide
5. Diphosphorus pentaoxide

**C.7.A Readiness**

1. What is the correct formula for magnesium hydroxide?
   1. HOMg
   2. MgOH
   3. MgOH2
   4. Mg(OH)2

**C.7.B Readiness**

1. Which of these formulas correctly represents copper(II) chloride?
2. CuCl
3. Cu2Cl
4. CuCl2
5. Cu2Cl2

**C.7.B Readiness**

1. Which of the following Lewis structures shows a molecule that has double bonds?
   1. 
   2. 
   3. 
   4. 

**C.7.C Readiness**

Answers:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item Number** | **Correct Answer** | **Readiness or Supporting** | **Content Student Expectation** | **Process Student Expectation** |
| 1 | C | R | C.7.A |  |
| 2 | D | R | C.7.A |  |
| 3 | C | R | C.7.A |  |
| 4 | B | R | C.7.B |  |
| 5 | C | R | C.7.B |  |
| 6 | B | R | C.7.C |  |
| 7 | D | R | C.7.C |  |
| 8 | D | R | C.7.C |  |
| 9 | B | S | C.7.D |  |
| 10 | D | S | C.7.D |  |
| 11 | C | S | C.7.D |  |
| 12 | B | S | C.7.D |  |
| 13 | D | S | C.7.E |  |
| 14 | B | S | C.7.E |  |
| 15 | A | S | C.7.E |  |
| 16 | D | S | C.7.E |  |
| 17 | D | R | C.7.A |  |
| 18 | D | R | C.7.B |  |
| 19 | C | R | C.7.B |  |
| 20 | C | R | C.7.C |  |