Chapter 7 Test Review

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Element** | **# of Valance e-** | **# of e- Gain or Lose** | **Ionic Charge** |
| **1** | **Cl** |  |  |  |
| **2** | **Na** |  |  |  |
| **3** | **Mg** |  |  |  |
| **4** | **O** |  |  |  |
| **5** | **N** |  |  |  |
| **6** | **Al** |  |  |  |
| **7** | **Xe** |  |  |  |

**Below, pay attention what is given and what is being asked. The chart below is not how the test will be worded. Refer to handouts for additional examples.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Name** | **Cation** | **Anion** | **Chemical Formula** |
| 8 | Potassium Sulfide |  |  |  |
| 9 | Potassium Phosphide |  |  |  |
| 10 | Beryllium Fluoride |  |  |  |
| 11 |  |  |  | Sr I2 |
| 12 |  | K | F |  |
| 13 |  | Ca | O |  |
| 14 | Copper (II) Fluoride |  |  |  |
| 15 | Tin (I) Sulfide |  |  |  |
| 16 |  |  |  | Ag2O |
| 17 |  | Al | (CO3)2- |  |
| 18 |  |  |  | Na2(SO4) |
| 19 | Xenon |  |  |  |

# NAME the Ionic Compound

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Ca I2
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mg O
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\*\*\*Cu S
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\*\*\*Cr N
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\*\*\*V3 (PO4)2
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Li2S
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Mg(NO3)2
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Be3(PO4)2
9. How are Ionic Bonds formed and what is the attractive force within an Ionic Bond?
10. Draw the transfer of electrons within ***Aluminum Chloride***.
    1. Using Lewis Dot Structures:
    2. Write the Chemical Formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. Draw the transfer of electrons within ***Barium Sulfide***.
    1. Using Lewis Dot Structures:
    2. Write the Chemical Formula:\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. Show what would happen if ***Ba2+*** and ***F1‑*** bonded.
    1. Equation:
    2. Name of Compound: \_\_\_\_\_\_\_\_\_\_\_\_
    3. Chemical Formula: \_\_\_\_\_\_\_\_\_\_\_
13. Show what would happen if ***Chromium (II)*** and ***Sulfur*** bonded.
    1. Equation:
    2. Name of Compound: \_\_\_\_\_\_\_\_\_\_\_\_
    3. Chemical Formula: \_\_\_\_\_\_\_\_\_\_\_\_\_
14. List all of the different types of light in the electromagnetic spectrum in order from longest wavelength to shortest wavelength. What property unites all different types of light, and what makes different types of light different?
15. How are frequency and wavelength related? What is the formula that represents this?
16. How are frequency and energy related? What is the formula that represents this?
17. A certain type of light has a frequency of 8.45x1014 Hz (sec-1). Calculate:
    1. The wavelength (in nanometers) of this light
    2. The energy (in Joules) of this light.
18. The energy of a certain type of light is measured at 4.29x10-19 J. What is the wavelength of this type of light? Does it fall in the visible light spectrum (400-700 nm)?