**Counting Atoms Practice**

**3 Ca(HCO3)2**

**Subscript**: represents the number of polyatomic ions present – \_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**\_\_\_\_\_\_\_\_\_\_\_\_**: part of the polyatomic ion – goes only with the oxygen

**Coefficient**: represents the number of \_\_\_\_\_\_\_\_\_\_ present – distribute to ***\_\_\_\_\_\_\_*** element

How many Ca atoms are present? \_\_\_\_\_\_

How many H atoms are present? \_\_\_\_\_\_

How many C atoms are present? \_\_\_\_\_\_

How many O atoms are present? \_\_\_\_\_\_

How many total atoms are present? \_\_\_\_\_\_

How many molecules are present? \_\_\_\_\_\_

What is the polyatomic ion present? \_\_\_\_\_\_

How many elements are present?\_\_\_\_\_\_\_\_

**Directions:** Use the formulas given to answer the questions that follow.

1. **5 Al2(CO3)3**

How many Al atoms? \_\_\_\_\_ How many molecules? \_\_\_\_\_

How many C atoms? \_\_\_\_\_ What is the polyatomic ion present? \_\_\_\_\_

How many O atoms? \_\_\_\_\_ How many total atoms? \_\_\_\_\_

2. **2 C11H22O11**

How many C atoms? \_\_\_\_\_ How many molecules? \_\_\_\_\_

How many H atoms? \_\_\_\_\_ What is the polyatomic ion present? \_\_\_\_\_

How many O atoms? \_\_\_\_\_ How many total atoms? \_\_\_\_\_

3. **Ca(CO3)**

How many Ca atoms? \_\_\_\_\_ How many molecules? \_\_\_\_\_

How many C atoms? \_\_\_\_\_ What is the polyatomic ion present? \_\_\_\_\_

How many O atoms? \_\_\_\_\_ How many total atoms? \_\_\_\_\_

4. **4 Na3(PO4)**

How many Na atoms? \_\_\_\_\_ How many molecules? \_\_\_\_\_

How many P atoms? \_\_\_\_\_ What is the polyatomic ion present? \_\_\_\_\_

How many O atoms? \_\_\_\_\_ How many total atoms? \_\_\_\_\_

5. **3 Al2(SO4)3**

How many Al atoms? \_\_\_\_\_ How many molecules? \_\_\_\_\_

How many S atoms? \_\_\_\_\_ What is the polyatomic ion present? \_\_\_\_\_

How many O atoms? \_\_\_\_\_ How many total atoms? \_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| 6. **3 Ca(HCO3)2**  Ca =  H =  C =  O =  Total atoms = | 7. **4 H2SO4**  H =  S =  O =  Total atoms =  Polyatomic ion = | 8. **5 H3PO4**  H =  P =  0 =  # of molecules =  Total atoms = | 9. **8 C6H12O6**  C =  H =  O =  Polyatomic ion =  # of molecules = |
| 10. **4 KI**  K =  I =  Total atoms = | 11. **2 HgBr2**  Hg =  Br =  # of molecules = | 12. **7 CuBr2**  Cu =  Br =  Polyatomic ion = | 13. **4 LiBr**  Li =  Br =  Total atoms = |
| 14. **20 K2SO4**  Total atoms =  Polyatomic ion = | 15. **NH4OH**  Polyatomic ion =  # of molecules = | 16. **3 Fe(OH)2**  # of molecules =  Total atoms = | 17. **6 CO2**  # of molecules =  Total atoms = |
| 18. **3 Cu2 (CO3)**  Polyatomic ion = | 19. **2 Ni3(PO4)2**  Total atoms = | 20. **6 (NH4)3PO4**  Polyatomic ion = | 21. **2 Na(NO2)**  # of molecules = |