

Name: _____ Period: _____ Date: _____

CT/CP Chemistry –minimal study review

True or False (make sure if you think they are false that you can correct them!)

- _____ 1. There are **more** atoms in **a mole** of Ca than in **a mole** of He.
- _____ 2. The mass number of an element represents the number of g/mol for that element.
- _____ 3. One half mole of carbon weighs 12.0 grams.
- _____ 4. A mole of hydrogen **weighs** 6.022×10^{23} grams.
- _____ 5. 12.0 grams of carbon has less atoms than 55.9 grams of iron.
- _____ 6. A mole of oxygen (O₂) weighs the same amount as a mole of nitrogen (N₂).
- _____ 7. The empirical formula is the actual number of atoms of each element in a molecule.
- _____ 8. The atomic number of an element represents the number of g/mol for that element.
- _____ 9. One mole of carbon (C) weighs 14.0 grams.
- _____ 10. 12.0 grams of carbon (C) has more atoms than 63.6 grams of copper (Cu).
- _____ 11. The molar mass is the mass of one mole of a substance

12. How many moles of each element are present in three moles of Ca(NO₃)₂? (6 points)

Ca: _____

N: _____

O: _____

13. Calculate the molar mass of Na₂CO₃:

14. Calculate the molar mass (g/mol) of nitrogen, oxygen, fluorine, chlorine, and hydrogen gas:

N₂=

O₂=

F₂=

Cl₂=

H₂=