Name _____ Period _____ Date _____

Determining Molar Mass Worksheet 1

- Determine the molar mass of the following elements or compounds
- Round all values to one decimal
- *You may need to determine the formula for the compound before finding the molar mass*

1. Titanium, Ti

2. Phosphorus, P

3. Sodium chloride, NaCl

4. Sodium hydrogen carbonate, $NaHCO_3$

5. Copper(II) sulfate, $CuSO_4$

6. Carbon dioxide

7. Silver nitrate

8. Magnesium hydroxide

9. Ammonium chloride

10. Sucrose, $C_{12}H_{22}O_{11}$

Name _____ Period _____ Date _____

Review Questions

- Answer based on the question provided
- Round all answers to the correct number of significant figures
- You may need to determine the formula before finding the moles

11. How many molecules are in 2.34 mol of hydrogen gas (H_2)?

12. How many molecules are in 5.20 mol of chlorine gas (Cl_2)?

13. How many atoms are in a 3.29 mol sample of carbon?

14. How many atoms are in 7.92 mol of sulfur trioxide?

15. How many formula units are in 5.76 mol calcium chloride?

16. How many moles of carbon dioxide are in 1.81×10^{24} atoms?
    Assume a perfect number of carbon and oxygen atoms were provided for this scenario

17. How many moles of sodium hydroxide are in 7.23×10^{24} atoms?
    Assume a perfect number of sodium, oxygen, and hydrogen atoms were provided for this scenario

18. How many atoms are in 2.18 mol aluminum sulfate?

19. How many moles of oxygen gas are in 2.34×10^{29} molecules?