**Review Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Part A: Write out the definitions for the following words**

1. Stoichiometry –
2. Mole ratio –
3. Law of Conservation of Mass –

**Part B: Interpret the balanced equation in terms of particles, moles, and mass. Show that the law of conservation of mass is observed.**

1. Balance the equation first: \_\_\_\_\_Na + \_\_\_\_\_H2O → \_\_\_\_\_NaOH + \_\_\_\_\_H2
2. Particles =
3. Moles =
4. Mass =
5. Law of conservation of mass =

**Part C: True or False**

\_\_\_\_\_1. Subscripts are added when balancing chemical equations

\_\_\_\_\_2. Subscripts are added when writing out chemical equations

\_\_\_\_\_3. To convert mass to moles, multiply by molar mass

**Part D: Multiple Choice**

1. In the equation C3H8 + 5O2 → 3CO2 + 4H2O, how many mole ratios can be written?
2. 6 c. 12
3. 4 d. 16
4. If you were given the equation 2Mg + O2 → 2MgO, which mole ratio would you use to find the moles of MgO produced if you know O2?
5. 2MgO/O2 c. 2Mg/2MgO
6. 2Mg/O2 d. O2/2Mgo
7. To convert 35 g of C to moles of C, you would need to…
8. Multiply by molar mass c. Divide by molar mass
9. Multiply by correct mole ratio d. Divide by correct mole ratio
10. One mole of (NH4)2Cr2O7 contains:
11. One mole of Nitrogen c. seven moles of Oxygen
12. One mole of Chromium d. four moles of Hydrogen
13. If an equation contains 5 substances, how many mole ratios can be written?
14. 20 c. 30
15. 25 d. 10
16. To convert 52 moles of Boron to grams of Boron, you would need to…
17. Divide by molar mass c. multiply by correct mole ratio
18. Multiply by molar mass d. divide by correct mole ratio
19. In the equation 2Mg + O2 → 2MgO, how many moles of magnesium oxide will be produced for each mole of oxygen?
20. 1 c. 4
21. 2 d. 0

**Part E: Write out all possible mole ratios for the balanced equations**

1. 4Al + 3O2 → 2Al2O3

**Part F: Use the equation to answer the questions: 6 Cs + N2 🡪 2Cs3N**

1. If 3 moles of Cs are used, how many moles of Cs3N will be produced? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. 5 moles of N2 will produce how many moles of Cs3N? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. 25 grams of N2 will produce how many moles of Cs3N? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. 100 grams of Cs will produce how many grams of Cs3N? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. How many grams of N2 are needed to make 150 g of Cs3N? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_