NO CREDIT IF YOU: Fail to put in the Units & Properly Round, Fail to show ALL math work

(1 pt) PRINT YOUR NAME on the line: _____

Your start time on this test _____

Your finish time on this test: _____

Max Grade: 101 points   Time it took you to do this test: _____

A. Fill in the Blanks (22 pts total, 2 points ea)

1. **Define Scientific Notation**

2. **What are the rules [in this class] for determining the number of Significant Figures:**

3. **Circle the incorrect Symbol: Co   O$_2$ H$_2$ N$_2$ C   He$_2$**

4. **Which contains more atoms: 1 mole of Carbon or 202.7 g of Lead?**

5. **What is Avogadro's Number and what does that mean?**

6. **What does Theoretical Yield mean?**

7. **Name two elements (Symbol and Name) that make up most of those in the Human Body (> 1.0 %).**

8. **Rutherford proposed the structure of the atom by shooting a _____at a target.**

9. **The atomic structure Rutherford proposed had several particles, what is the name given to the smallest and what is its charge?**

10. **Radioactive Carbon is used for dating very old items. This Carbon has 6 protons and 8 neutrons. Normal Carbon has 6 protons and 6 neutrons. These different forms of Carbon are called**

    _____and the C 6 proton, 8-neutron nuclide symbol is _____

11. 54.235 in / 2 in = _____

B. Show the Complete and Balanced Equation for the following (48 pts total, 8 points ea)
      And - Will the reaction go to Completion?   DO 6 OF THE 9

B-1. How many moles of rubbing alcohol is there in 1.15 g of it [H_3C-CH_2-CH_2OH]

B-2. The gas tank of my car will hold 17.5 gallons. I go to fill it up in Canada and it's in Liters. How many Liters will my gas tank hold?

B-3. Convert 25.^{0} F to Kelvin

B-4. What is the molecular and what is the empirical formulae for a compound that contains 59.95% Carbon and 13.42% Hydrogen?

B-5. Convert 1.0 in to km

B-6. 10.0 g of Silver Nitrate is reacted with 3.7 g of Potassium Chloride to produce 200. mg of a precipitate. What is the Percent Yield for this reaction?

B-7-9. 5.00 g of Zinc is reacted with 3.00 g of Hydrochloric Acid.

      B-7 Show the Complete Balanced Formula

      B-8 How much "Product" [what is the driving force] is formed

      B-9 How much excess is there of the one reactant?

Fill in the Blanks (30 pts total, 2 points ea)

Name	Formulae	Soluble or Insoluble in Water
1. Iron (II) Phosphate	_____	_____
2. $Pb(NO_3)_4$	_____	_____
3. Barium Nitrate	_____	_____
4. Potassium Sulfide	_____	_____
5. Zinc Carbonate	_____	_____
6. Ammonium Phosphate	_____	
7. H_2SO_4	_____	
8. NH_4ClO_2	_____	
9. PCl_3	_____	
10. NO	_____	

DID YOU CHECK FOR SIGNIFICANT DIGITS   _____ Yes   _____ No

DID YOU CHECK FOR PROPER UNITS   _____ Yes   _____ No

(1 pt) How do you rate this test from 1 to 10   _____

1 = Very East, can do it with my eyes closed, 10= Very Very Difficult, could not do any of the problems