**MEASUREMENT AND MATTER NOTES HONORS CHEMISTRY**

Directions: This packet will serve as your notes for this unit . Follow along with the PowerPoint presentation and fill in the missing in formation. Important terms / ideas are in all capitals and bolded!

• CHEMISTRY:

\*\*ALL \_\_\_\_\_\_\_\_\_\_ AND \_\_\_\_\_\_\_\_\_\_\_\_\_\_ THINGS ARE MADE OF \_\_\_\_\_\_\_\_\_\_… CHEMISTRY AFFECTS \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_!!!

• **Branches of Chemistry**

-ORGANIC:

-INORGANIC:

-ANALYTICAL:

-BIOCHEMISTRY:

-PHYSICAL:

• **Types of Chemistry**

-PURE CHEMISTRY:

-APPLIED CHEMISTRY:

**• Observations**

-QUALITATIVE:

-QUANTITATIVE:

**• Scientific Notation**

-Short cut for writing \_\_\_\_\_ or \_\_\_\_\_\_\_\_ numbers

-Always contains a number greater than \_\_\_ and less than \_\_\_\_ followed by X 10N (N = a \_\_\_\_\_\_\_\_\_\_)

-Move the \_\_\_\_\_\_\_\_\_\_\_ (left or right) until the number is between 1 and 10 AND the number of \_\_\_\_\_\_\_\_\_\_ moved will = \_\_\_\_

-If no \_\_\_\_\_\_\_\_\_\_\_ is present, assume it is at the \_\_\_\_\_\_\_!

Move \_\_\_\_\_\_\_\_: N is \_\_\_\_\_\_\_\_\_\_\_\_\_

Move \_\_\_\_\_\_\_\_\_: N is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\*Example:

-Need to move decimal until number is between \_\_\_ and \_\_\_\_

-Which way is it moving?:

-Count the number of \_\_\_\_\_\_\_\_\_ moved (\_\_\_) to give X 10N

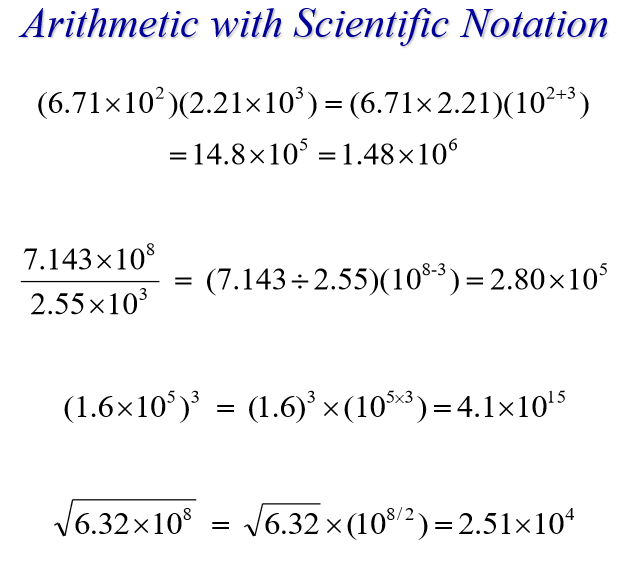
-More Examples:

a) 0.00002789 b) 1,230 c) 99,800,000,000 d) 0.0071

-Express \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in STANDARD NOTATION:

Move decimal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as before!

1. b) c) d)



**• Accuracy vs. Precision**

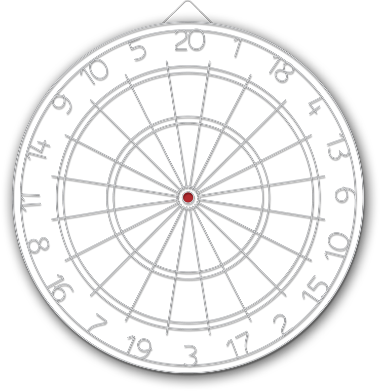
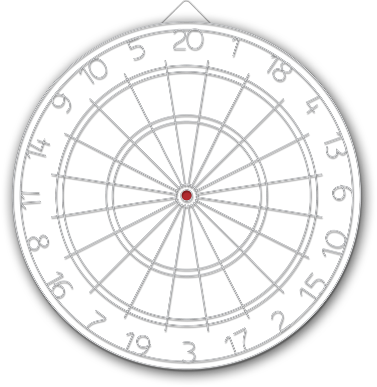
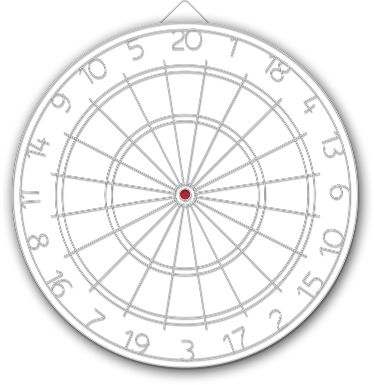
-ACCURACY:

-PRECISION:

\*Tools with \_\_\_\_\_\_ numbers after the decimal = \_\_\_\_\_\_ precise

\*\*WHEN MAKING \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, IT’S GOOD TO HAVE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

-Dartboards: (draw the darts for each AND label the type):

**• Precise vs. Imprecise**

-Example:

Mass of silver = \_\_\_\_\_\_\_\_\_\_\_ g Mass of silver = \_\_\_\_\_\_ g

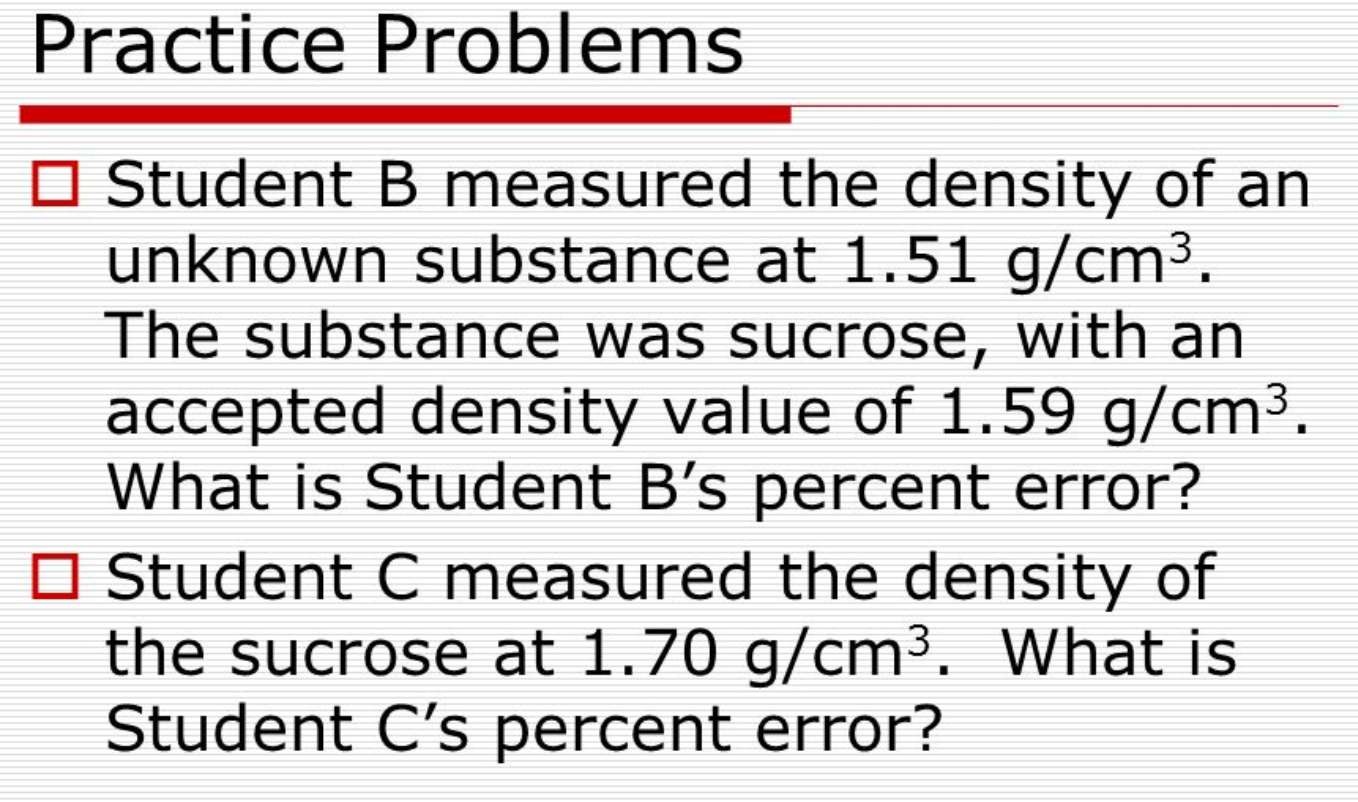
-\_\_\_\_\_\_\_\_ precise measurement will have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ after the decimal, this means the \_\_\_\_\_\_\_\_\_ is more \_\_\_\_\_\_\_\_\_\_\_\_\_\_! -Which is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ measurement?

4.609 Liters 4.6 Liters 5 Liters

**• PERCENT ERROR:**

-Equation:

-Example: Sally found the mass of a \_\_\_\_\_\_\_ sample to be \_\_\_\_\_\_\_\_. What is the % error in her measurements?



Work:

For the remainder of the period, use the time wisely to memorize the information needed by Friday 😊