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|  | Topic/Objective:  Accuracy & Precision  Significant Figures | Name: |
| Class/Period: |
| Date: |
| Essential Question: I express the accuracy and precision of my lab measurements using significant figures.  BOP: Pages 6 and 7 | | |
| Questions: | Notes:  Accuracy is  **How close a value is to the true value.**  And is determined by **Selecting the a tool with finer calibration.**  Precision is **How close repeated values are to one another**  And ~~is~~ **Reflects the calibration of the measuring tool** .  Both Accuracy and Precision depend on the **Calibration** and the **quality** of the measuring tool.  \_\_\_ accuracy  \_\_\_ precision  \_\_\_ accuracy  \_\_\_ precision  \_\_\_ accuracy  \_\_\_ precision  \_\_\_\_accuracy  \_\_\_\_precision  **The competence of the experimenter can influence both accuracy and precision.** | |
| Summary: | | |
|  | **Significant Figures** are the number of **digits**  that ‘count’.  The trick to Sig figs is knowing when to count **ZERO’S**  And when to **ignore** them.  Rule one: All non-zeroes are **Significant** (they count).  **56,764.3** has 6 sig figs.  **2** has 1 sig fig.  Rule two: All zeroes are **Significant** (they count) if they are .**between** non-zeroes.  **605** has 3 sig figs.  **80,704** has 5 sig figs.  Rule three: All zeroes are **Significant** (they count) if they are . on the **right** AND there is a **decimal point** .  **280,000.** has 6 sig figs.  **8070.** has 4 sig figs.  **280,000**  has 2 sig figs.  **8070** has 3 sig figs.  Rule four: Zeroes are NOT **Significant** (they do not . . count) if they are on the  **left** EVEN IF  . there is a **decimal point** .  **0.007** has 1 sig figs.  **0.007000** has 4 sig figs.  **280.000**  has 6 sig figs.  **0.9** has 1 sig figs.  When you multiply and divide sig figs, round the answer to the least number of sig figs.  40 \* 12.0 = 480 but the correct sig fig answer is **500**.  STEPS:   1. Complete the multiplication or division 2. Count the sig figs in the values you started with. 3. Select the lowest number of sig figs. 4. Round your answer to the lowest number of sig fig’ | |
| Summary: | | |