**Purpose: To practice experimental design as well as executing written experiments.**

**Prediction/Hypothesis: We will have a fairly significant margin of error with some methods, but across all 3 experiments, we will conclude with a fairly accurate value for the density of aluminum.**

|  |  |
| --- | --- |
| Procedure & Methods: Water Displacement | Data & Observations: |
| 1. Use a scale to measure the mass of Al |  |
| 1. Fill a volumetric container (size depends on size of aluminum sample) with {volume} of water (size depends on aluminum sample) |  |
| 1. Lower aluminum sample into volumetric container (do not drop, so as to avoid spillage) |  |
| 1. Observe quantity of water displaced in order to determine volume of object |  |
| 1. Divide mass by volume to determine density |  |
| 6) |  |
| 7) |  |

|  |  |
| --- | --- |
| Procedure & Methods: Calculating volume | Data & Observations: |
| 1. Assuming aluminum sample is a regular solid, measure dimensions of height, length, and width |  |
| 1. Use a scale to measure mass of aluminum |  |
| 1. Divide mass by volume (h \* l \* w) to obtain density |  |
| 4) |  |
| 5) |  |
| 6) |  |
| 7) |  |

|  |  |
| --- | --- |
| Procedure & Methods: Guess | Data & Observations: |
| 1. Have lab partner & self write down approximate numbers for density |  |
| 1. Average the two numbers to get an approximate value |  |
| 3) |  |
| 4) |  |
| 5) |  |
| 6) |  |
| 7) |  |

**Calculations:**

**Tables/Graphs/Charts/Sketches:**

**Conclusion:**

**Post-Lab Questions:**

1)

2)

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