**Density Lab 2**

**Thought question**: A brick of gold has a density of 19.2 g/cm3. The brick of gold is cut equally in half. What is the density of one of the halves of gold? Explain your answer.

**Procedure**

1. Obtain from your teacher a portion of clay.
2. Record the mass of the clay, place answer in assigned trial for the full amount of clay in the data table below.
3. Record the volume of the clay, place answer in assigned trial for the full amount of clay in the data table below.
4. Split the portion of clay in about half. Place one of the halves of clay back into the Ziploc bag.
5. Record the mass and volume of this smaller piece of clay, place answer in assigned trial for half the amount of clay in the data table below.
6. Split your portion of clay in about half. Place one of the halves of clay back into the Ziploc bag. Record the mass and volume of the clay and record the data in the assigned trial for fourth the amount of clay.

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|  |  |  |  |
| --- | --- | --- | --- |
| **Amount of Clay** | **Mass (g)** | **Volume (cm3)**  Measure L x W x H | **Density (g/cm3)**  SHOW WORK |
| Full |  |  |  |
| Half |  |  |  |
| Fourth |  |  |  |

**Analysis and Conclusions**

1. Swap data with a neighboring group and find an average:

|  |  |  |  |
| --- | --- | --- | --- |
| **Amount of Clay** | **Your Team** | **Other Team** | **Average Density** |
| Full |  |  |  |
| Half |  |  |  |
| Fourth |  |  |  |

1. Revisit the “Thought Question”. Were you correct or incorrect? If incorrect, explain what the correct answer is and how you know.
2. What are two sources of error that could have occurred as you measured for the mass and volume of the clay samples?

|  |  |  |  |
| --- | --- | --- | --- |
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| Full |  |  |  |
| Half |  |  |  |
| Fourth |  |  |  |

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