# Lab: Application of Uncertainty and Significant digits to determine the density of a metal cube.

**Procedure**

1. Determine the length, width, and the height of the metal cube provided, making sure that you record the uncertainty in each of your measurement in the table below.
2. Mass the metal cube, recording the uncertainty in the measurement in the table below.

**Data Collection**

Metal of the cube:

| Quantity | Measurement | Uncertainty |
|---|---|---|
| Length | | |
| Width | | |
| Height | | |
| Mass | | |

**Data Processing**

1. Determine the volume of the cube,( l x w x h); recall the rules for multiplying significant digits.

2. Determine the density of the cube, (D = M ÷ V); recall the rules for dividing significant digits.

3. State the density of the cube to the correct number of significant digits.

Density of the cube:

4. Compare your answer to the actual density, the theoretical value provided by your teacher. Determine the percentage error.