

Name: _____

Lab Partners: _____

Building Physical Intuition – Measurement 3

Groups: form groups of three

Equipment: each group should have a metal block and vernier calipers. Groups will share triple-beam balances. Use the triple-beam balances at their given locations. Your instructor will demonstrate proper use of the vernier calipers and triple-beam balance.

Measurements

1. Using the **vernier calipers** measure the dimensions of the metal block. Do not assume that the length, width, and height are all the same. Record your measurements in the table below to the nearest 0.01 cm. You may choose which dimension to label length, width and height.
2. Use the triple beam balance to measure the mass of the block to the nearest 0.01 g. Your instructor will discuss proper use of the triple beam balance.

Length (cm)	
Width (cm)	
Height (cm)	
Mass (g)	

Calculations

For each calculation, show your work (what you are multiplying, dividing or adding) and round your answers to the correct number of significant figures.

1. Determine the volume of the provided block in cm^3 .
2. Determine the density of the provided block in g/cm^3 .
3. Convert the density to kg/m^3 .