

1.7.1: Errors in Measurement Lecture Demonstrations

Re-do calculation of density of bowling ball done earlier paying more attention to *accurate* measurement of diameter, and correct *precision* of measurements and calculated results.

Measure diameter precisely with large caliper (or bar on ring stand lowered to top of ball).

Care with propagation of errors gives:

$$D = 5.44 \times 10^3 \text{ g} / 5.58 \times 10^3 \text{ cm}^3 = 0.974910394 \text{ g/cm}^3$$

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