

I checked the calibration of my AWS ACPro-200 balance by weighing repetitively a 100-g standard. The spread of values returned was ~40 mg, astonishingly good for such an inexpensive instrument (currently, \$18 on Amazon). Because 100 g was several-fold my planned measurement, I also weighed 3 newish nickels and the value returned was 15.01 g, my expectation (currently, newly minted nickels weigh 5.000 g each, making them a substitute mass standard in the absence of a real one) . Satisfied with the balance, I made a solution, nominally 15 g sucrose qs 100 ml H<sub>2</sub>O in a volumetric flask and corrected for expected approximate solution density (1.06 g ml<sup>-1</sup>). These procedures resulted in sucrose concentration expressed as g (solute) g<sup>-1</sup> (solution), i.e., the definition of brix. Then, I measured the brix with my usual refractometer 0-32%, ATC, graduations at 0.2%, and I extrapolated between graduations. Closure was within ~5% (as good as the sum of errors would indicate). I concluded that my refractometer was reliable for measuring brix in sugar-cane juice. (Methodological improvements would be unproductive given the instrumentation and the purposes to which the validation would be put.)