1. Again, state what should be mentioned when reporting a result.

2. I disagree with the note regarding the intrinsic uncertainty (resolution or size of divisions) of a scale like a tape measure or meter stick. I think confidence is higher that the estimated value is near the estimate than the end points of the probable interval, and therefore would assume a triangular probability distribution rather than a rectangular one; taking the triangle to be symmetric around the peak (an isosceles triangle), the standard uncertainty is given by $a/\sqrt{6}$, where $a$ has the same meaning as in the rectangular distribution. Using analytic geometry (areas of triangles), determine the fraction of data within 1 standard uncertainty of the central value. The height of the triangle is $1/a$ (I'll explain in class).

3. I also believe the note errs in not scaling the different contributions before combining them (see Table 1 on page 21). If the intention is to assign a coverage factor $k=2$ and interpret that as a 95% confidence level, in accordance with a normal distribution, then the contributions from rectangular distribution uncertainties must be scaled by the ratio 68/58 for them to be interpreted as from normal distributions. What are the scaled values of standard uncertainties of the resolution and string-straightness contributions? What then are the combined standard uncertainty and expanded uncertainty?

4. Write down the author's recommendations for reducing uncertainty.

5. Write down the author's abbreviated list of good measurement practices.