Chemistry 3rd edition - Video Instruction Thumb Drive ERRATA

Module 1: Using Significant Figures in Mathematical Problems:

At the 8:15 time stamp, the teacher states incorrectly:

"When you multiply or divide you use the significant figures of the least precise measurement. Both of our measurements go to the hundredths place so the answer needs to be rounded to the hundredths place as well."

Instead, as stated in the textbook on page 28, when multiplying or dividing with significant figures, you round the answer so that it has the same number of significant figures as the measurement with the fewest significant figures. Therefore, in the video, when multiplying 7.88 by 5.38, you get 42.3944. Since both measurements have 3 significant figures, the answer will be rounded to 3 significant figures as well. The final answer should be shown as 42.4.

As additional reference, the teacher communicates this concept correctly at the following time stamps in the video: 3:31, 4:00, and 10:43.

Module 6: Video for Experiment 6.4:

In the sample calculations in two places: at about 7:35 and 10:11, the teacher misstates the significant figures rule as rounding to the least precise, when the calculations involve dividing. Correctly, while dividing, you count the least number of significant figures.

7:35-8:08 – 64 g/50.0 mL = 1.28 g/mL. Round to 2 significant figures, so 1.3 g/mL.

10:11-10:23 – 43 g/50.0 mL = 0.86 g/mL. Round to 2 significant figures, so 0.86 g/mL.

Module 7: Video for Experiment 7.1:

In the sample calculations at about 16:40 the teacher divides wrong. 10.0/454 = 0.0220 (not 0.22).

In turn, the calculations are wrong throughout the rest of the problem.

She also rounds incorrectly to .2 vs .0220 (3 sig figs based on the original calculation 10.0/454). This also changes the final calculation, which would be 5.41×10^{15} molecules.

There are sample calculations for this experiment in the Solutions and Tests Manual. The number of drops varies, but the concept and math of the calculations is correct.

Module 11: Video for Experiment 11.1:

Two errors on this video.

At time stamp 12:24, degrees C is not converted to K. A green screen edit was made to point his out.

At time stamp 17:20 the R value is listed as 0.081 while the teacher says 0.0821. This carries throughout the final calculations, although the correct answer is computed since she actually uses 0.0821 in her calculator.