Notes for MiTaL discussion

From Megan, 4/8/25

* 4.2 comments:
  + Example 4.2.27 – I see you are assuming an infinitely thin cone.
  + #10 (in problem set) – just a note that is a looong, skinny cylinder.
  + General comment: this may be my fault in how I’ve written my tests, but I test almost exclusively on composite shapes. At least one student has commented that the homework is “easier” than the test. I’m not sure that is true, but the number of “here’s a regular shape, find the volume” has me thinking about it.
* 5.1 comments:
  + Example 5.1.5 doesn’t seem to be phrased correctly. “… and the current speed is 95 kias, 105 kias?” Are you asking that as two different questions? Maybe rephrase as “… and the current speed is 95 kias? 105 kias?”
  + Consider swapping the order of Model 5.1.4 and Example 5.1.5.
  + #2 (in problem set): what is ktas?
  + #5: when asking for the answer as a percent, please put percent symbol. Also, is there a better way of communicating that the number produced is already a percent? I think people may assume it is a decimal. Also (this one is very minor) I’d personally prefer commas in the large numbers. Does that fit with the gestalt of the book?
* 5.2 comments:
  + I recommend swapping sections 5.2.1 and 5.2.2. Start with the full quadratic formula, and then show the lack of a `b` term makes the math simpler. – I brought this up and you didn’t like this.
  + I don’t have any in the homework, but I’d like to see some contextless problems not already in standard form.
  + #6 and 7: Please move the hint down to a different line for readability.
  + We’re lacking quadratics with a non-zero b value. I know you don’t like them, but I have more in my homework. We also *could* include the chemistry ICE equations here. (I have them programmed in the last day of the exponential unit, which is labeled “Unit 4, part 2: solving exponentials and logs, and applications” – Day 22.)