 Discuss some strategies that you have tried to overcome your own difficulties in teaching quantitative skills.

 What are some common challenges? Brainstorm creative solutions to challenges that have lingered despite your best efforts.

 Think about ways that TMYN (given what you learned last evening) can help with these solutions too.

Small group report out (9 am Friday)

* Skills and sense of scale important for all students even those who will not take more science
* Need to ground math in things that they know – lab and field exercises that are real to them
* Show them the value in the math they need to know
* Using math to set up critical thinking – not important that they can do this problem – apply learning to subsequent problems
* Students need persistence to do math – modules can help
* Can do it without the modules by breaking down steps but modules help
* Transfer is difficult – can do math in math but not geoscience
  + Can show them an example with one set of units but cannot do a different set of units
  + Can’t get past the units to see the similarities
* Math phobia
* Using students to solve problems
  + Work in groups to do math
  + Write out solutions step by step to share with student – in word form explain how to do problem
  + Computers do too much – have them set up their own graphs, etc.
  + Reliance on calculators
  + Students do not care about metric system – connect with an international student in the classroom – make it real instead of a far off land
* Modules seem to fit learning style of our students – they are used to using computers and can do it at their own pace
* We foster collaborations between students – look for collaborations with faculty – English to help summarize – math to fill in other gaps – a new voice lends credence to importance
* It takes a lot of time to teach math at the expense of the science (sometimes)
* Working with TAs and depending on TAs to communicate math
  + Math is too basic for some of the more advanced graduate students
* Don’t want to do all the steps or show all the steps