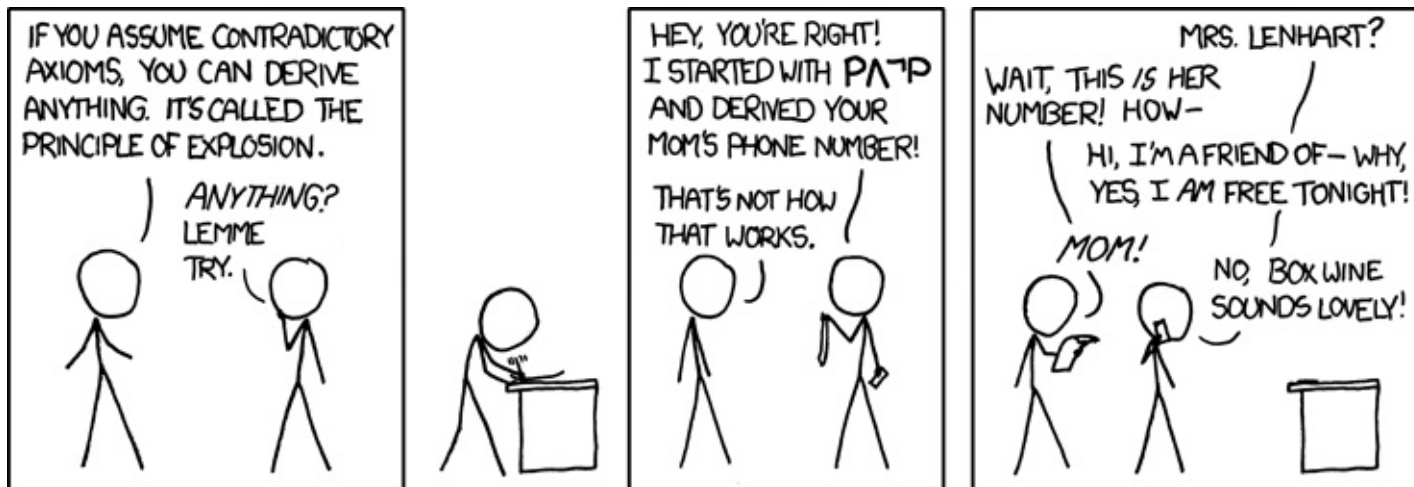


MATH 8001

21 September 2012

Guiding principles



Any issues arising in your current teaching?

Guiding principles

(in contrast to details on implementing those principles, to be discussed in coming weeks)

1. There is no single best way to teach mathematics.

- Students have different learning styles.
- Instructors have different strengths.
- Instructors should adapt to their present audience.
- Reform v. traditional

OK, then why are we bothering with this seminar?

2. What we do in the class matters.

- Most of us were going to succeed in mathematics *in spite of* the quality of our mathematics instruction.
- That is not the case with most of our students.

3. The foundation of good teaching is *respect*, for ourselves and for our students.

- Believe that you are the mathematical expert in the room.
- Accept the students where they are in their mathematical training (after verifying that they have a reasonable chance of success in the class).
- Understand that the students are taking other classes and have other life responsibilities.
- Show up, and start and stop on time, even if students do not always do the same.

4. Prepare.

- A little goes a long way.
- Shows respect.
- Models behavior as a student and a mathematician.

5. Be clear.

- Project your voice, write deliberately, don't erase it immediately.
- Don't waste their time in class. "Will this be on the test?" It could be, if you're spending time on it.
- Conversely, don't expect them to invent new mathematics in order to succeed on a test.
- Tell them what you are going to tell them, tell them, and then tell them what you told them. (Agenda, wrap-up.)
- Ask for questions and mean it.