

MA111: Contemporary mathematics

Jack Schmidt

University of Kentucky

January 11, 2012

SCHEDULE:

- HW 0 is due Friday, Jan 13th, 2012.
- HW 1A,1B is due Friday, Jan 20th, 2012.
- HW 1C,1D,1E,1G is due Friday, Jan 27th, 2012.
- Exam 1 is Monday, Jan 30th, during class.

Today we will discuss contemporary mathematics, the subject and the course.

What is mathematics?

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- What do you think of when you hear “math”?

Are these mathematics?

- (A) Is honesty the best policy for voters, or is voting for second-best wiser?
Does the notion of “voter preference” influence how many candidates run?

- (B) How much more should you expect to pay for “no interest for six months”?

- (C) Jesse James hid a stage-coach worth of gold somewhere in a **corn maze**!
How can you search the maze without retracing a path more than once?

- (D) **A picture repeated** forms a pattern, but flipping every other copy adds variety. Once you choose a picture, how much variety can you add?

- (E) How can three paranoid pirates divide **the loot** so that each feels he gets at least a third? Is honesty the best policy?

What is mathematics

- How can we define mathematics so that it addresses these questions?
- But how can we distinguish mathematics from just “everything”?
- Send a short description of contemporary mathematics to me “in writing” (that is, text me at 512-522-5137 or email me at jack.schmidt@uky.edu)
This is “HW0” the zeroth homework.
- Best (most accurate and compelling) as well as a few funnies will be posted on the blackboard site

Contact info

- Jack Schmidt <jack.schmidt@uky.edu>
- Text me or leave voice mail (including name and course) at (512) 522-5137
- See me outside of class in the [Mathskeller](#)
(CB63, big red doors in the basement)
2pm to 3pm on Mon, Wed, and Fri
- Check [blackboard](#) for links and announcements

Syllabus

- Absence policy
- Grading
- Exams
- Online homework
- In-class activity

Poll

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- Which is the best strategy for textbooks in MA111?

(Left) Buy the book from the bookstore with MyMathLab bundle (\$130)

(Right) Buy the e-book direct from the homework website (\$80 ish)

(Both) There's no reason to buy a book of any sort for this class

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- Ok, a variety of answers. Confer with your neighbors, especially those that disagree and try to hash out the advantages and disadvantages.
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- We can see then that there are wrong answers, but there can be more than one right answer.

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- How can we define mathematics so that it addresses these questions?
- But how can we distinguish mathematics from just “everything”?
- **HOMEWORK!** Answer two insanely difficult questions on the Pearson/MyMathLab online homework website
- **HOMEWORK!** Send a short description of contemporary mathematics to me “in writing”
- Best (most accurate and compelling) as well as a few funnies will be posted on the blackboard site