Day 1: setting the tone

Teaching Workshop

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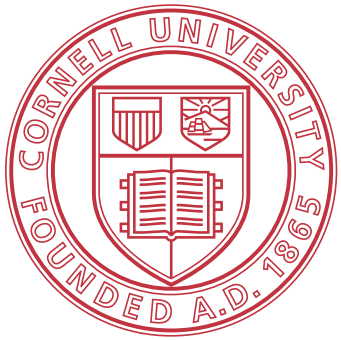


Welcome to This "Lunchtime" Workshop!

Brought to you by CALM (Cornell Active Learning in Mathematics)
Today we will go over:

- Introducing yourself.
- Introducing the topic.
- Setting the tone (class norms, expectations).
- Start doing math.
- How to keep the norms and climate all semester.

Please ask questions along the way.

Introduce Yourself - Disclaimers

- The first activity will go over how introducing yourself can set the tone in your class.
- Note: there is no right or wrong in how you prefer being addressed or what you choose to tell your students.
- Some strategies do not work for everyone, go with what you are comfortable.

Introduce Yourself - Group Activity

In your groups:

(a) The introduction slides are for non-major courses. Discuss the two introduction slides, what is explicitly/implicitly told to the students?

(b) Think back to two or three of your favorite college teachers (in math or in another subject). Did they go by their first name? By "Doctor" or "Professor"? Why do you think they made that choice?

(c) What do you know about those college teachers? What information did they divulge why do you think they made the choice to share that information? How did the openness or privateness of your professors affect your experience as a student?

Professor X

- My research is on *obscure topic A*.
- I have completed an undergraduate degree at *Research University B*.
- I got my PhD from *Fancy School C*.
- My office hours are at 7am on Saturday.

Meet Your Instructor - Professor Y

- You may call me Dr. Y, Prof. Y or *my first name*, as you prefer.

- My work is in *colorful simplification of topic D*.
- I am happy to chat more about math or anything at office hours.
- I enjoy *the following hobbies*.

Introduce the Topic

- Given an elevator pitch about the course.
- Ask the students

  What is *this subject* about?
  What is *this subject* useful for?
  What questions do they want answered this term?

Introduce the Topic - Group Activity

- Think about a course you will be teaching.
- Tell the story of that course, what will students learn this semester.

Setting the Tone

Prepare students for the new course.

- Ask students how they expect this course to be different than previous ones.
- Establish class norms, you can let students choose them.
- What do they expect from you?
- What should you expect from them?

Class Norms

Example of norms:

- Be present
- We are all learning.
- Everyone has something to contribute
- No one has all the answers.
- Expect to be uncomfortable.

I stole some of these from Prairie's talk at the teaching seminar.

Do Some Math!

Give students a taste of what/how they will learn this term.

- Plan a short math activity/lecture.
- It can be to review some of the prerequisites.
- This activity should align with your teaching goals for the semester.
- I could be as simple as introducing a definition a giving a polling question.

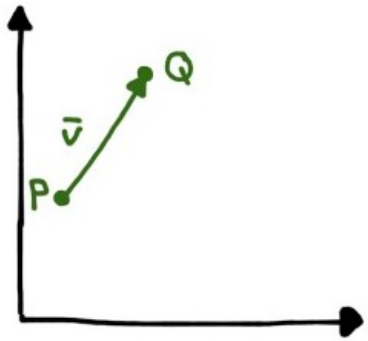
Example

Definition

A two-dimensional **vector** *is determined by two points in the plane. We write*

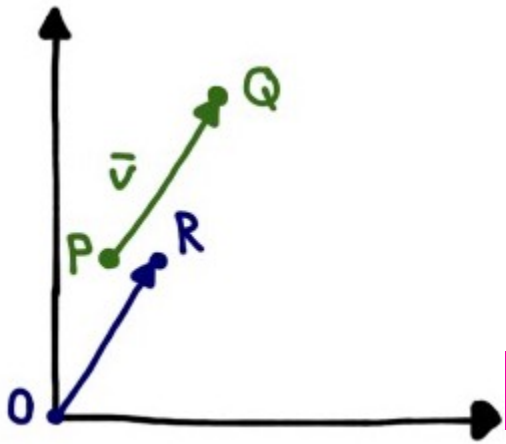
$$\mathbf{v} = \overrightarrow{PQ}$$

where P is the tail and Q is the head.



Definition

The length (or magnitude) of $\mathbf{v}$ *is denoted* $||\mathbf{v}||$ *and is the distance from P to Q.*



Definition

The vector $\mathbf{w} = \overrightarrow{OR}$ *pointing from the origin to R is called the position vector of R.*

Question

T/F the vectors $\mathbf{u}$ and $\mathbf{v}$ are equal:

A True **B** False

This is a lot!

You can collect/share some of that information in an introduction survey/video.

- Here are some questions I like to ask students:
    - Preferred name (how to pronounce) and pronouns, potential major, where are they from.
    - Is there anything about you that you would like me to know?
    - Is there anything about me you would like to know?
- You can survey on paper, Canvas quizzes, Qualtrics or Google.

I usually spent at most 5 minutes on the syllabus during the first class.

Throughout the Semester

- Repeat norms (before exams, when returning graded homework).
- Ask students how they expect exams to be different.
- Have students reflect on the mistakes they made on exams (Maria Terrell), for exam points or as part of a homework.

Reflections on Mistakes

Step1 Say what kind of error it was you made. Use one of the following categories:

- Arithmetic/algebraic/computational error.
- Conceptual error - Not being able to use the appropriate definition or theorem.
- Logical error- Here are only a few examples...
- Blank problem - Explain whether it was blank because you ran out of time, or if you were completely stumped.

Step2 For each Type 2 and 3 error write one sentence about what you have learned by doing the correction.

Step3 Work correctly the part of the problem you missed.

Throughout the Semester - Group Activity

Discuss strategies/activities to

- Reinforce class norms.
- Maintain positive class climate.
- Not letting grades take over.

Conclusion

- Any day 1 questions remaining?
- Have fun!
- What teaching workshops would you like?

Bonus Activity:

In small groups:

- Practice introducing yourself.
- Take 2 minutes to think about it, your introduction should be of at most 30 seconds.
- Take turns introducing yourselves, repeat if you have time.