# Math16B – Week 1 Homework

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### LEARNING GOALS

The following are the learning goals for this week. These are a good benchmark for testing your understanding, and these goals will be used to create the evaluations in this course.

## Coding Skills

• Download an IDE

- Break up a large problem into smaller problems
- Write down precise and simple instructions that are unambiguous
- Present step-by-step thinking in clear language.

## Linear Algebra

- Recall and apply the row reduction algorithm
- Recall the formula for a dot product and sum of two vectors

### **Presentations Skills**

• Create and critique a checklist for making effective presentations

#### PROBLEMS

- (1) (2 points) Write a pseudo code to compute the sum of two vectors.
- (2) (2 points) Write a pseudo code to row reduce a matrix
- (3) (2 point) Write a pseudo code to find the norm of a vector
- (4) (2 points) Write a pseudo code to find the two vectors with largest norm in a list of 10 vectors.
- (5) (2 points) Write a checklist/procedure to make an effective presentation. Your checklist should include specific things to watch out for. You may want to look at some YouTube tutorials and see what they do well and wrong.