

**Math 124 - Fall 2016**  
**Exam 2 Information**

Exam 2 will be in class on Wednesday November 16. It will focus on the material covered in class between October 14 and November 11, inclusively, although the material from earlier in the class will by necessity make an appearance.

Please read these instructions carefully, as not heeding them will constitute a breach of the UVM Code of Academic Integrity:

- You may not use a calculator or any notes or book during the exam.
- You may not access your cell phone during the exam for any reason; if you think that you will want to check the time please wear a watch.
- The work you present must be your own.
- Finally, you will more generally be bound by the UVM Code of Academic Integrity, with which you should familiarize yourself if you haven't already.

You will be asked to acknowledge that you have read these instructions on the first page of the exam.

For each problem, you should write down all of your work carefully and legibly to receive full credit. For each question, you should use theorems and/or mathematical reasoning to support your answer, as appropriate.

Facts about Exam 2:

- On the exam there will not be any numbers less than  $-15$  or greater than  $15$ . There might be some fractions but the denominators will not be larger than  $5$ . This might not be the case for the practice exam.
- 68% of the exam will be about Chapter Two and 32% of the exam will be about Chapter Three.
- Almost all of the exam problems are suggested problems, which you can find online.
- To study, you should spend a large amount of time pretending like you do not have access to solutions. Struggling with the problems is the only way to learn. You should only look at the solutions after spending at least three separate ten-minute periods thinking about a problem.
- This goes double for the practice exam. You should solve it like a real exam (i.e. without the solutions!) and force yourself to sit with it for the full length of it, even if you think you cannot answer any more questions.
- The practice exam is significantly longer than the actual exam to give you practice with more problems. The recommended sitting time (1 hour 15 minutes) is also a bit shorter than the actual time you will have on the exam, but you should still aim to be comfortable solving these problems in that amount of time.
- There will be questions that ask you to define some mathematical terms we have introduced in class. To receive credit for your definitions, you do not have to quote the textbook or the class notes directly. However, your answer must be equivalent to the definition given in the book or in class, and be just as precise, to receive full credit. There are no definitions on the practice exam, but here is a full list of all of the terms whose definition you are responsible for on the real exam: the span of a subset (Definition Two.I.2.13), linearly independent (Lemma Two.II.1.5), basis (Definition Two.III.1.1), dimension (Definition Two.III.2.6), row space and row rank (Definition Two.III.3.1), column space and column rank (Definition Two.III.3.6), rank (Definition Two.III.3.12), isomorphism (Definition Three.I.1.3) and linear map (Definition Three.II.1.1).

You will not be given any formulae for the exam.