

- ◆ Exam 3 is on Tuesday, December 1<sup>st</sup> starting at 8:00 pm in LILY 1105.
- ◆ Seat assignments will soon be in the grade book in Blackboard. Please know your seat.
- ◆ Only a single-line calculator is allowed.
- ◆ Do not ask any questions during the exam unless you think there is a typo. It is not fair for you to receive a hint unless the same hint is given to all the students taking the exam.
- ◆ The exam consists of 15 multiple-choice questions covering Lessons 24 through 34. The material from Lessons 35 and 36 will not be on Exam 3.
- ◆ You will hand in your answer sheet and leave the exam site with your exam. Your answer sheet will be the only thing graded. Answer every question.
- ◆ Only the formulas from the formula sheet will be provided on the cover page. The front cover of the exam is Page 2 of this memo. Please look it over so you know which formulas will be provided and which need to be memorized.
- ◆ Previous exams are available at the course web site. Not every problem on the exam will be just like a problem from an old exam. Homework, quizzes and the review problems should be studied to be adequately prepared. The number of lessons covered on each exam varies from semester to semester. Old exams are a guide, however, be careful. All problems on the ASSIGNMENT SHEET are fair game for the exam. Do not assume that if it was not on SAGE it is not on the exam.
- ◆ If you have a schedule conflict with the exam time, see Mr. Delworth by Monday, November 30<sup>th</sup>, in his office, Math 814.
- ◆ **If you miss the exam** for any reason, see Mr. Delworth immediately. Students with valid reasons for missing an exam will be given the makeup exam without a grade penalty. Students with non-valid reasons for missing the exam will be given the makeup exam with 20 points being deducted from their score. All conflicts are confirmed.
- ◆ **20-minute rule:** Students are not allowed to leave the exam site for the first 20 minutes of the exam. Students arriving after the first 20 minutes will not be allowed to take the exam and will sign up for the alternate exam. For a valid reason, no grade penalty will be assigned; however, for a non-valid reason, there will be a 20 point penalty.
- ◆ Bring a picture ID to all exams. PUID is preferred; however, a passport or drivers license is acceptable.
- ◆ Exam answer will be posted on the course web page within an hour after the exam. Exam scores will be available in the grade book in Blackboard within two days of the exam. Letter grade cutoffs will be posted to let you know where you stand in the class.
- ◆ Exam 3 Review Problems:  
Page 557; 5-8, 11-16, 19, 20 (a, b only), 21 (a, b only), 41, 43  
Page 273; 30, 33, 36, 37, 40

This is a good sampling of problems to go over Monday in class.

**The front page of the exam is attached. Take a look.**

Name: \_\_\_\_\_

**Class Times and Sections:** 7:30 and 10:30 Class, Section 0001

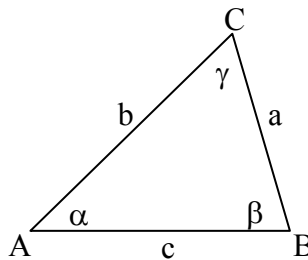
Online Class, Section 0003

### Instructions:

- ◆ You must use a #2 pencil on the answer sheet.
- ◆ On the answer sheet, fill in: **(This has to be correct to find your score online.)**
  - a) Your last name, first name and middle initial **and** blacken the appropriate spaces.
  - b) Your division and section number **and** blacken the appropriate spaces.
  - c) Your 10-digit student identification number **and** blacken the appropriate spaces.
  - d) Leave the test/quiz number blank.
  - e) Sign your name at the bottom of the answer sheet.
- ◆ Make sure that the cover of this exam matches the color of your answer sheet. If you are color blind, ask the person sitting next to you for assistance.
- ◆ There are 15 questions. On the answer sheet, blacken your choice of the correct answer in the spaces provided for questions 1-15. Do all of your work on the question sheets. Turn in the answer sheet when you leave and keep the question sheets. Only the answer sheet will be graded.
- ◆ All questions are worth the same. Please answer every question. No points will be deducted for wrong answers.
- ◆ PDA's, cell phones, and pagers must turned off, put away, and out of sight. No books or papers are allowed.
- ◆ A one-line calculator may be used. No other calculator is allowed.
- ◆ The exam is self-explanatory. Do not ask questions about any of the exam problems.
- ◆ Exam answers will be emailed to all students about an hour after the exam ends. They will also be posted on the MA 154 webpage by noon the day after the exam. Exam scores will be posted online by noon on the second day after the exam. Log into Blackboard to find your exam score. PLEASE check your exam score online before the next exam.

LAW OF SINES

$$\frac{\sin \alpha}{a} = \frac{\sin \beta}{b} = \frac{\sin \gamma}{c}$$



LAW OF COSINES

$$c^2 = a^2 + b^2 - 2ab \cos \gamma$$

ANGLE BETWEEN TWO VECTORS:  $\cos \theta = \frac{(\vec{a}) \cdot (\vec{b})}{\|\vec{a}\| \|\vec{b}\|}$