

MA 111 Review for Exam 5 (Chapter 3)

Exam 5 (serving as our final exam) will be given on Friday, December 16, 1-3 pm, in our regular classroom.

Can you work each homework, quiz, and class problem *correctly* and *quickly*, providing explanations and justifications, without looking at the notes?

Have you carefully studied the slides and materials on the website? Please study these handouts that are posted in Course Content on the Blackboard site:

- Lecture Notes 11-18 (Introduction to Fair-Division Games; The Divider-Chooser Method)
- Lecture Notes 11-28 (The Lone-Divider Method; The Lone-Divider Method for Three Players; The Lone-Divider Method for More Than Three Players)
- Lecture Notes 12-05 (The Method of Sealed Bids)
- Lecture Notes 12-07 (The Method of Markers)
- Sharing Basics (Fair-Division Games)
- Divider Chooser Two Player (Two Players: The Divider-Chooser Method)
- Divider Chooser Worksheet (MA 111 Worksheet on Divider-Chooser)
- Lone Divider (The Lone-Divider Method)
- Worksheet on the Lone Divider (MA 111 Worksheet on Divider-Chooser)
- Worksheet 2 on the Lone Divider (MA 111 Notes on Lone-Divider: The Case of a Conflict) (Ignore the section on the Lone-Chooser.)
- Some Answers for Worksheet 2 on the Lone Divider

You should be able to:

- understand the concept of a fair-division game.
- use the notations and ideas introduced in the basic elements of fair-division games.
- state the basic assumptions of our fair-division games.
- determine whether a fair-division game is continuous, discrete, or mixed.
- determine a share's worth to a player given a certain set up.

- determine whether shares are fair shares to certain players given a certain set-up.
- state the steps in the divider-chooser method.
- determine the outcome of the divider-chooser method given a certain set-up.
- explain the steps in the lone-divider method.
- determine players' bids based on the values they give the shares.
- find a fair-division using the lone-divider method when given enough information.
- carry out the method of sealed bids.
- find a fair division using the method of markers
- place players' markers based on their value systems.

For practice problems, see the practice tests that I handed out in class on December 7 and 9. Also, work the problems in the textbook on the relevant fair-division methods.