MAT 118 Spring 2017
Homework #4
Due Friday, 2/24/17 in class

Please show all of the steps you take to solve the problems.
Also, write your recitation section number!

Problems from the text: 3.3.22, 3.3.26, 3.3.34, 3.4.36

In addition to those problems, please answer the following questions.

Three siblings, Anne, Bill and Cathy, are inheriting a plot of land. The plot consists of three different areas: ¼ of the plot is a well-maintained grassy garden; another ¼ is pavement, and ½ of the plot is a field, with little grass and lots of dirt. Here is a schematic picture of the land:

The siblings have been out of touch for some time, so the lawyer handling the distribution of the inheritance suggests that they apply a fair division method to determine who gets what.

Anne values the garden, pavement and dirt field equally; Bill has no desire for any of the dirt field, and equally values the garden and pavement; and Cathy values *only* the garden.

A. Make a table listing the siblings' (numerical) values of the garden, pavement and dirt field *relative to the total value of the plot*. You can use either fractions or percentages.

B. Describe how an application of the Lone-Divider method might proceed. Suppose Anne is the divider. Make sure to describe each step of the method, not just the outcome.

C. Describe how an application of the Lone-Chooser method might proceed. Suppose Anne is the chooser. Make sure to describe each step of the method, not just the outcome.