

When I am working on a problem I never think about beauty. I only think about how to solve the problem. But when I have finished, if the solution is not beautiful, I know it is wrong.

-Buckminster Fuller

Math 4303  
Group A

**FUNDAMENTALS OF MATHEMATICS**

Fall 2012

Tuesday, November 20

Be ready to present Parts I, II, and III on November 27 and November 29.

**Solving equations of the form  $ax+b=cx+d$**

Section 4.2.2

**Part I: Definitions.** Define the following, before reading Section 4.2.2, providing the names for their respective properties:

1. Field.
2. Group.

**Part II: Test your understanding.** Answer this part on your own.

**4.2.2 Problems:** 1, 9

**Part III: Show your reasoning.** You are more than welcome to work with someone for this part.

**4.2.2 Problems:** 2 (only prove existence of multiplicative inverse), 6