

Algebra and Mathematical Representation

Syllabus for Summer 2007

Drs. White and Mikusa

Email: white@math.kent.edu mmikusa@kent.edu

Webpage <http://www.math.kent.edu/~white/MIMEalgebra>

MIME Course Goals:

1. Strengthen proficiency and understanding of mathematics taught in grades 4 – 9.
2. Introduce and develop an understanding of the structure of mathematics behind the mathematics taught in middle school (grades 4 – 9).
3. Increase appreciation of understanding the mathematics behind what is taught in middle school.
4. Increase confidence in ability to understand and do mathematics.

Monday	Tuesday	Wednesday	Thursday
6/11 Magic Squares; Pretest	6/12 Magic Squares & Algebraic Properties	6/13 Operations with Numbers: Why do the procedures work?	6/14 Guess the Number: Informal Use of Representation
6/18 Guess the Operation: More Informal Representation	6/19 Variables and Formulas: Formal Representation	6/20 Variables and Formulas, continued	6/21 Identifying and Extending Patterns
6/25 Patterns, continued: Recursive Formulas	6/26 Patterns, continued: Explicit Formulas	6/27 Patterns, continued: Verifying Formulas	6/28 Verifying Formulas, continued; Functions: Informal Discussion
**6/29 FRIDAY Functions: Formal Definitions and Representations	**7/2 MONDAY Functions: Words, Tables, and Graphs, OH MY	**7/3 TUESDAY Functions: More Graphs; Interviews	July 4 th Holiday (7/4 – 7/8)
7/9 Functions: Interpreting Graphs	7/10 Functions: Symbolic Representations	7/11 Review	7/12 Test

Topics and dates subject to change

Grades will be calculated with the following data:

1. Homework - 60%
A minimum of 11 homework assignments will be given. Each will be scored on the basis of 10 points. We will use the highest 10 scores.
2. Test - 25%
This assessment will include some short answer, extended response, and problem solving. We will distribute more details approximately a week prior to the test.
3. Attendance - 15%
We require attendance and participation in our activities for each class. Your cooperation and participation are greatly appreciated!