



2. MathZone is a powerful Web-based tutorial for homework, quizzing, testing and multimedia instruction. MathZone offers practice exercises, videos, animated tutorials called e-professors and access to NetTutor. It is not mandatory that you use MathZone in any specific way.

### Calculator

Students are not permitted to use a calculator for any part of the Mat-009 course. Students may use a scientific calculator (not a graphing calculator) after Test #1 on operations with integers in the Mat-013 component of the course.

### Catalog Course Description for Mat-009

This course focuses on computational skills and problem solving. Topics include addition, subtraction, multiplication and division of whole numbers, fractions and decimals, ratio and proportion, percent, measurement areas and perimeters of geometric figures, Pythagorean theorem and measures of central tendency ( mean, median and mode). Applications are included as well.

### Objectives of Mat-009

The student will demonstrate through quizzes, written exams, homework assignments and online assessments the ability to :

- 1.add, subtract, multiply and divide whole numbers
- 2.solve word problems with whole numbers
- 3.name common fractions in lower and higher terms
- 4.put common fractions in ascending order
5. add, subtract, multiply, and divide common fractions
- 6.solve word problems with common fractions
7. put decimal fractions in ascending order
8. add, subtract, multiply and divide decimal fractions
9. solve word problems with decimals.
- 10.write ratios as fractions and in simplest form
11. write rates as fractions and find unit rates and prices
- 12.write sentences as proportions and solve problems by writing proportions
- 13.solve word problems involving proportions
14. understand the meaning of percent
- 15.rename common fractions as percents and decimal fractions
- 16.rename percents as decimal fractions and common fractions
- 18.solve percentage word problems
- 19.compute area and perimeter of rectangles, squares, triangles and circles
- 20.understand and apply the Pythagorean Theorem
- 21.find the mean, median and mode of a data set

### Catalogue Course Description for Mat-013A

This is the first half of a two-semester course in algebra designed to introduce and develop elementary algebra concepts. Topics include: Properties of real numbers, operations on real numbers, simplifying and evaluating algebraic expressions, solving linear equations, solving

literal equations, verbal problems and polynomials. Students must complete this course and Mat-013B to fulfill the Mat-013 requirement.

**Grading Criteria - MAT-009**

The grade for this course will be based on online computer work, quizzes administered in the lab and a cumulative basic mathematics exam. The computer work will comprise 20% of the final grade, quizzes will comprise 30% of the final grade and the cumulative basic mathematics exam will comprise 50% of the final grade.

The grades will be assigned as follows:

92% - 100%	A	77% - 78%	C+	<b>A minimum grade of 'C' is required in this course to fulfill the basic mathematics requirement</b>
89% - 91%	A-	70% - 76%	C	
87% - 88%	B+	60% - 69%	D	
82% - 86%	B	below 60%	F	
79% - 81%	B-			

**GRADING POLICY FOR MAT-013A**

<b>ALEKS Pie</b>	<b>15%</b>
<b>ALEKS Quizzes and in-class quizzes</b>	<b>15%</b>
<b>5 Tests</b>	<b>40%</b>
<b>Final Exam</b>	<b>30%</b>

Grades should be assigned as follows:

92% - 100%	A	77% - 78%	C+	<b>A minimum grade of 'C' is required in this course to fulfill this basic mathematics requirement</b>
89% - 91%	A-	70% - 76%	C	
87% - 88%	B+	60% - 69%	D	
82% - 86%	B	below 60%	F	
79% - 81%	B-			

**Tests for Mat-013A**

There are 4 in-class tests. Each instructor is responsible for producing his or her own test.

**Quizzes for Mat-013A**

**ALEKS (on-line) quizzes will be set up for you and it is suggested that in-class quizzes are given frequently for a total of 15% of the students' grades.**

**Homework**

Homework should be assigned each class meeting and periodically checked. Whether textbook assignments are graded or not, students should be made aware that doing homework is of the utmost importance in order to solidify learned skills and to provide a strong foundation upon which they can learn new material.

### Attendance

There is no official attendance policy. However, students should be made aware of how important attendance is for their success. Some instructors build in extra quizzes to encourage good attendance. Whatever you choose, some students will have attendance problems and the issue needs to be addressed.

### Cheating Policy

A cheating policy should be given in writing to students on the student outline.

### Extra Help

Students should be informed where they can get help if they have difficulty with the subject matter. Some suggestions are:

1. If you are a full-time instructor, students should be encouraged to come for help during your office hours.
2. Students can get tutoring at two different locations:
  - a. The Developmental Mathematics Lab/Tutoring Center in MH 142 is available for students many hours during the day and evening. In addition to tutoring, students have access to computers on which they will be able to review and practice the skills which they have learned in class. They will be able to work on software programs which are aligned with their textbooks and on other programs which cover basic mathematics and algebra skills. A schedule of hours for MH 142 is made available and displayed at the beginning of the semester.
  - b. The Tutoring Center in JLC is open many hours during the day and evening. Faculty volunteer during selected hours and peer tutors are often available to answer students' questions. A schedule of hours for the JLC Tutoring Center is made available at the beginning of the semester.
  - c. Students should be encouraged to work in study groups. This will be fostered if you allow students to work in groups, at times, during your class sessions.

### Final Exam

There is a standardized final exam for both the Mat-009 and the Mat-013 course. The final exam for Mat-009 will be given in class after the 6<sup>th</sup> week of the semester. You will be notified in a memo as to when the exam should be given. **Any student who has not completed the Mat-009 lab requirement will NOT be allowed to take the Mat-009 final exam.** Those students will receive an 'F' in Mat-009 and will be administratively dropped from Mat-013. Students must score a minimum of 65% on the Mat-009 final exam to receive a grade of 'C' or better.

The two-hour Mat-013A final exam will be administered during the last class session. It is a departmental exam and a requirement of the course. **A minimum grade of 60% on the Final Exam is required to pass the class with a grade of C or better**

End-Term Procedure

Review packets for the final exam are available in Center 2 and online. You will be asked to fill out an end-of-year summary sheet at end of the semester.

**The following is a suggested course outline for Mat-009/013 for classes meeting twice a week.**

**NOTE:** *Although you will not be teaching basic mathematics in class during the first five or six weeks of the class, your students will be working on Mat-009 in the lab. You should be keeping track of the students' time in the lab and the performance on mastery quizzes. The lab staff will send you a record of student time spent in the lab and the mastery quizzes for you to grade. The final exams will be available in Center 2. There are review packets for the Mat-009 final exam in Center 2. This would be a good idea to distribute these to your students to help review for the final exam.*

**The sections that are listed below do not include the objectives to be covered. This detailed information is included in the department outline of the Mat-013A course.**

**DAY-to-DAY OUTLINE**  
**MATERIAL COVERED****DAY #**

- 1. Introduction** *(During this introduction, the instructor should hand out the course syllabus, day-to-day outline and a handout on the **Mechanics of the Course**. Many of the students do not understand the concept of the course and will rely on the instructor to make things clear by giving a thorough explanation. In particular, students should be made aware that there is an additional lab requirement for this course for the first six weeks of the semester*

*Students should sign the contract and keep the yellow copy. The instructor gets the white copy and you can give the pink copy to Julie in Center 2 to file in case it is needed.*

**Review Whole Numbers** *(For this section, one could cover the basics of whole numbers, including: place value, reading and writing, rounding, estimating, trouble spots in operations, such as zeros in subtraction, multiplication and division, exponents, order of operations and word problems. This must obviously be a very brief review You can refer to any Mat-010 texts to guide you in your lesson.*

**Remind your students to purchase the text and bring the Aleks access code to class on the second day of class.**
- 2. Developmental Mathematics Lab/Tutoring Center Orientation**  
*Your class has been scheduled to have a lab orientation in MH 142 for the last 80 minutes of this session. During this time, one of the lab staff will introduce you and your students to the rules, regulations and mechanics*

of the lab. The staff member will demonstrate some of the software that is available and help students register for the ALEKS program. Students will take an assessment test on ALEKS during this second meeting. Students will also sign up for an hour lab time per week during this lab orientation.

Teach the first part of **R2-fractions before the lab orientation**

3. **R2-more fractions**  
1.1
4. **R3 – decimals (pages 22-24)**  
  
1.3
5. **R3-more decimals and percents (pages 24-27)**  
1.4
6. **R3-percent application (pages 27-29)**  
Review for Test #1
7. **TEST # 1 (No calculator permitted)**  
1.5  
*NOTE: Because the final exam in basic mathematics is getting close at this point of the course, you might want to hand out one of the Mat-010 review available in Center 2. Remind students that they must keep up with their work on Aleks.*
8. **R4-geometry (pages 32-34)Geometry**  
1.6
9. **R4-more geometry (pages 34-36, volumes of rectangular solids only)**  
2.1, 2.2
10. **2.3, Review for TEST #2**
11. **TEST #2**
12. **FINAL EXAM –MAT-009** (*this exam may not come exactly on the 12<sup>th</sup> day of classes. You will receive information as to when the last day to give the Mat-009 final will be.*)  
**NOTE: Students who have not completed all of their requirements for the Mat-009 course will not be allowed to take the final exam. The names of these students will be submitted by the instructors to Dr. DeLucia who will administratively withdraw the students from Mat-013A and will receive a grade of 'F' in Mat-009.**
13. **2.4**
14. **2.6**
15. **Review for TEST #3**
16. **TEST #3**
17. **5.1**
18. **5.2, 5.3**
19. **5.3, 5.4**
20. **Review for TEST #4**
21. **TEST #4**
22. **5.5**
23. **5.6**
24. **5.7**
25. **Review for TEST #5**
26. **TEST #5**
27. **Review for Mat-013A Final Exam**
28. **Mat-013A Final Exam**

**Check List**

*the following are things you will need throughout the semester:*

1. *Student contracts to be signed during the second class meeting*
2. *Student syllabi (you create these using the information about the course and hand them out on the first day of class.*
3. *Final Exams (ordered for you and available in Center 2 on the day of the final)*
4. *End-term summary-to be handed in at the end of the semester*

**If you have any questions, please contact Susan Shulman at Ext #3734 or at [smsbulman@yahoo.com](mailto:smsbulman@yahoo.com) or at [Susan\\_Shulman@middlesexcc.edu](mailto:Susan_Shulman@middlesexcc.edu) or contact Claire Vassiliadis at [CVassiliadis@middlesexcc.edu](mailto:CVassiliadis@middlesexcc.edu) or at Ext #3115.**

**Thank you in advance for your cooperation.**