Community College *of* Philadelphia
MATHEMATICS DEPARTMENT

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WELCOME TO MATH 017

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Dear Instructor,

In the fall of 2009 a revision of Math 017 was approved. As a result, significant changes in curriculum and policies adopted in Math 017 were introduced and are effective beginning in Spring 2010[1]. This document is to inform you about these changes.

There are three principle changes instructors should know:

I.   **There is a mandatory Standard Departmental Final Exam that ALL students of Math 017 must take and certain grading policies are to be followed. (*See page* 2)**

II.   **The department discourages the use of calculators during class in Math 017 and calculators are specifically *prohibited* on the final exam. (*See page 3*)**

III.   **The course content has changed significantly from the pre-Spring 2010 version. (*See page 5*)**

There are also several resources about which instructors should be aware:

IV.   **The list of available texts and materials. (*See page 8*)**

V.   **The composition of the Standard Departmental Final Exam. (*See page 10*)**

VI.   **Pearson's *MyLabsPlus* online software package. (*See page 14*)**

VII.   **Student Support Services through the Learning Lab. (*See page 14*)**

Appendix   Sample Syllabus. (*See page 14*)

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[1] The Math 017 Course Document that details these changes is available from the Math Department.

I. MANDATORY STANDARD DEPARTMENTAL FINAL EXAM AND GRADING POLICY

Every Math 017 student must take the Standard Departmental Final Exam as part of the course requirements. If a student does not take this final exam, the instructor must submit a course grade of either F (failure) or I (incomplete). A grade of MP (making progress) *cannot* be submitted for such a student. Additionally the final exam score must count for at least 25% of a student's course grade.

The Standard Departmental Final Exam will be created by the Math Department and distributed to each instructor prior to the scheduled final exam meeting time. Precise grading instructions will also be provided. Instructors must mark each exercise as *correct* or *incorrect.* **No partial credit is to be awarded on the final exam**. Marked exams must be returned to the department (the due date will be provided with the exam). Currently instructors will need to report final exam scores for Math 017 students in addition to the normal grade submissions. This can be done through the *Math Final Exam Scores* link under the Faculty Menu tab in the instructor's *MyCCP* portal[2].

The following grading scheme has been adopted as part of the Math 017 revision:

P   **Pass**. To receive a **P** grade a student must take the Standard Departmental Final Exam **and** meet all other course requirements as **determined by the instructor.** Requirements may include attendance, punctuality, class participation, completing all assignments, doing homework, taking all tests and quizzes, and achieving a passing average on tests, quizzes and assignments. **The Standard Departmental Final Exam must count for at least 25% of each student's final grade.**

MP   **Making Progress**. To receive an **MP** grade, students must **complete all requirements** for the course as determined by the instructor and **take the Standard Departmental Final Exam.** Requirements may include attendance, punctuality, class participation, completing all assignments, doing homework, taking all tests and quizzes, etc. Students should be truly making progress: showing improvement and demonstrating the ability to pass the course given more time to do so.

An **MP** grade is not a **D**. A student can get an **MP** grade with a lower average than a student who gets an **F**.

F   **Fail.** A grade of F is given if a student does not complete all requirements for the course as determined by the instructor or shows little progress during the semester.

I   **Incomplete**. A grade of I should be submitted in accordance to the policy outlined in the College Catalog.

Note: A student who does not take the Standard Departmental Final Exam may not be given a grade of P or MP. If eligible, a student may be assigned a grade of I. If the Final Exam is not made up within 6 weeks of the end of the semester, then the I grade is automatically converted to an F.

If a student, for a legitimate reason, does not take the final exam, his or her make-up exam should be scheduled with the Math Department Head.

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[2] If you cannot find the *Math Final Exam Scores* link on the *MyCCP* Faculty Menu, please contact the Math Department Head.

What will the Math 017 Standard Departmental Final Exam look like?

The Standard Departmental Final Exam is designed to be taken in 2 hours. It consists of 45 non-multiple choice questions, of which 9 will be on arithmetic and 36 on algebra. A document describing the construction of and list of problems for the final exam as well as the grading guidelines are available on the Math Department website (see section IV below).

How is the exam created?

59 different categories of questions have been defined. Each category contains a certain number of questions. Different versions of exams will be created by selecting 45 out of the 59 categories and then randomly selecting a question from each category. The pool of questions in each category will be constantly growing. Additional problems will be added to the list. The new problems do not need to be of the same format as the ones that are already there. They will be added as long as they fit the description of a category. If you have an exercise that you would like to add, or comment on an existing one, please send it to wluy@ccp.edu, gschulz@ccp.edu, or mwojcicka@ccp.edu.

How will the requirement of the common final exam for all Math 017 students be implemented?

The ultimate goal is to create a computerized (but not a multiple choice) form of the exam that will be graded instantaneously by computers. Until the computerized version is available, "paper and pencil" will be a temporary solution. For the time being, the final exam will be created by the Department but administered and graded by each instructor individually. At some point, the exam will be given and graded independently from the instructors (i.e. instructors will no longer proctor or grade their sections), which will insure uniform standards until the computerized final is available. Instructors will be informed when this policy will be put into effect.

What do you, as an instructor of Math 017, need to do?

See page 4 for details.

II. CALCULATOR USE IN MATH 017

The department discourages the use of calculators (or other computational devices) in Math 017. The expectation is that students are to carry out manipulations by hand.

> **CALCULATOR USE ON THE STANDARD DEPARTMENTAL FINAL EXAM IS STRICTLY PROHIBITED.**

Devices that could be used as a calculator (such as some cell-phones) are also not to be used. Students should be made aware of this policy early and reminded shortly before the final exam.

What do you, as an instructor of Math 017, need to do?

Before the semester starts:

Review the available materials and inform the department head of a text selection.

At the beginning of the semester:

Inform the students about the new policies in Math 017 i.e. required common final exam, no calculators, no partial credit, format of the final exam (please, emphasize the fact that 20% of the final exam will be on arithmetic). Please, include this information on the course syllabus (you might want to consider using the recommended syllabus (see section IV).

During the semester:

Distribute among your students the *Student Guide to the Standard Departmental Final Exam* (see section IV). Make sure that students understand the formatting of the acceptable answers on the final exam. To this end, please get yourself acquainted with the grading guidelines for the final exam detailed in the *Grading Rubric* (see section IV).

At the end of the semester:

1.   Pick up copies of the exam for your sections together with the rubrics for grading of the exam. They will be available for you just prior to the final exam week during normal Fall and Spring semesters or a few days before the last day of the course otherwise.

2.   Administer the exam in your sections. The exam is a 2 hour exam. **The use of calculators (or any other devices that could be used as "substitutes" for calculators) is forbidden**. Grade the exam according to the rubric given to you and use the score of your students to determine their final grade in the course, counting the score on the exam as at least 25% of the grade. Neither MP nor P grade can be given to a student who did not take the exam. Enter the final exam's score for each student on a new form under Faculty Menu available through *MyCCP*. You must fill in this form by the same day as grades are due. As usual, enter the final grade for each student through *MyCCP*.

3.   **Return the exams** of your students to the same office you used to pick up your exams no later than a week from the day the exam was given.

III. NEW COURSE CONTENT

List of Topics for Math 017:

- Variables and algebraic expressions
- Evaluation of algebraic expressions and the Order of Operations
- Equivalent algebraic expressions
- Operations on exponential expressions with non-negative integer exponents
- Addition, subtraction and multiplication of algebraic expressions
- The commutative, associative and distributive Laws
- Factoring out a common factor (including -1)
- Simplification of basic rational expressions (**NEW**)
- More complicated evaluation of algebraic expressions (**NEW**)
- Expressing a given variable in terms of others (**NEW**)
- Generalities on equations
- Definition of a linear equation (**NEW**)
- Solving linear equations and inequalities in one variable
- Solving literal equations for a specific variable
- Graphing sets of the type $x < a$, $x \leq a$, $x > a$ and $x \geq a$ on a number line
- Recognizing and matching patterns as well as writing expressions in a prescribed way (**NEW**)
- Factoring the difference of two squares

New topics are discussed in more detail on the next page.
A recommended (but not required) syllabus for Math 017 can be found in the appendix.

Topics no longer covered in Math 017:

- Exponential expression with negative integer exponents
- Graphs of linear equations in two variables
- System of linear equations in two variables
- Factorization of trinomials[3]

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[3] Some instructors may choose to retain factoring monic trinomials but it is not included in the Standard Departmental Final Exam.

New topics covered in Math 017 (together with some examples of exercises):

1. Simplification of basic rational expressions:

- Simplify, if possible: a) $\dfrac{x-y}{y-x}$ b) $\dfrac{2x-x^2}{4xy}$ c) $\dfrac{x-y}{x}$

2. More complicated evaluation of algebraic expressions:

- Evaluate the following expressions if $\dfrac{a}{b}=3$:   a) $\left(\dfrac{a}{b}\right)^2$ b) $-\dfrac{a}{b}$

- If $x+y=-2$, evaluate: a) $7x+7y$ b) $\dfrac{x}{7}+\dfrac{y}{7}-x-y$

3. Expressing a given variable in terms of others:

- Rewrite the expression $\dfrac{3a}{2}$ in terms of x, if it is given that $a=2x$. Simplify your answer.

- Rewrite the expression $a-2b+3c+4d$ in terms of x, if it is given that
  $a+3c=5x$ and $4d-2b=-x$. Simplify your answer.

4. Definition of a linear equation:

- Determine if the following equation is an example of a linear equation in one variable. If it is, write it in the form $ax+b=0$ and determine the value of a and b in your representation.

  a) $-3(x-1)+2=0$ b) $2x^2+1=0$

5. Recognizing and matching patterns as well as writing expressions in a prescribed way:

- Write the expression $(x-2)^2+(y+1)^2=16$ in the form:

  $$(x+p)^2+(y-q)^2=r^2$$

  What are the values of *p*, *q*, and *r*?

- Write the following expressions in the form $Ax+By$, where *A* and *B* are any numbers. Identify *A* and *B* in your representation.

-
  a) $\dfrac{-x+8y}{4}$ b) $3x-(2y+x)$ c) $x-(y+x)$

- Write the expression x^{24} in the following forms. Identify *a* in your representation.

  a) a^4 b) a^6

New emphasis in teaching Math 017

Arithmetic
Arithmetic should be intertwined with algebra throughout the entire course. **20% of the final exam is on arithmetic** so students should be constantly asked to perform operations on integers, fractions and decimals. Here are some examples of exercises that could help prepare students for arithmetic part of the final exam (please, remember that calculators should not be used and will not be allowed on the final exam):

- Evaluate $\dfrac{2x}{y}$, if possible (indicate, if not possible), when $x = -\dfrac{1}{2}$ and $y = \dfrac{2}{3}$. Before evaluating, rewrite the expression substituting the numerical values of x and y.

- Show that $(-x)^2$ is not equivalent to $-x^2$ by evaluating both expressions when $x = -2$.

- Simplify $\dfrac{(-a)^3(-a)^8}{a^9}$ and then evaluate, when $a = -\dfrac{2}{5}$.

- Is $x = -0.2$ a solution of the following equation? Please, show how you arrived at your answer: $-x^2 = -0.04$.

Proper use of mathematical language
Students are expected to understand that solving problems not only consists of finding the correct answer but also of the ability to present the solution in the right format, using proper mathematical language. Students should know the meaning of the "=" sign and be able to correctly use parentheses. Here are some examples of exercises that could help achieve this goal:

- Write the following phrases as algebraic expressions. Remember to place parentheses when needed:

$$-n \text{ subtracted from } m .$$

- Name the operation that is to be performed in the following algebraic expressions:

  a) $a(-b)$ b) $a - b$

- Determine which expression is raised to the n-th power.   a) $(-s)^n$ b) $-s^n$

- If $z^2 = 3$, evaluate: a) $-z^2$ b) $(-z^2)^2$

Topics in Math 017 are to be covered with greater depth
Students are expected to be able to solve exercises requiring good understanding of a topic. Here are some examples of such exercises:

- Whenever possible, write using exponential notation:

  a) $(a-b-c)(b+a-c)(a-c-b)$ b) $\dfrac{xyxyx}{-b-b-b}$

- If possible, add (or subtract) the following expressions. If not possible, clearly say so.
  a) $abc+bca$ b) $3mn^2 - 4mnn$

- Find an inequality that is satisfied by 4 but not by 8 (if it helps, you might plot the points).

- Evaluate $-t$, when $t=1,\;\; t=-1$. Based on your results, which of the following are true?
  a) $-t$ is always positive
  b) $-t$ is always negative
  c) $-t$ may be positive or negative depending on the value of t

- Let $P=2x+3$ and $Q=-x$. Find x so that the following is true: $P=Q$.

IV. THE LIST OF AVAILABLE TEXTS AND MATERIALS

Textbooks used in Math 017
Text selection for this course is at the discretion of the instructor. Selected texts should cover the required course material as described in section III. Below is a list of suggested texts:

Elementary Algebra, Marvin Bittinger (with ancillary material from the _Elephant Supplementary Material_)
   This is a re-customization of the previous Math 017 custom text from Pearson Publishing. The text from which this is drawn does not cover every topic in the new course content, nor does it necessarily cover the original topics in as much depth as intended now. The book contains supplementary material from the _Elephant Notes_ in order to cover the additional topics and depth. **New copies of this text come bundled with an Access Kit for Pearson's _MyLabsPlus_ online software package (see section VI).**

Elephant Materials with Exercises (a.k.a. Lecture Notes) and Supplementary Material
   These texts, written by math department faculty specifically for Math 017, are available for free online and can be downloaded and printed by instructors and students (see below). Hardcopies of these texts can also be purchased through the college bookstore. The _Supplementary Material_ is ancillary to the _Material with Exercises_ but could be used in conjunction with another text. Instructors who use these texts should recommend students purchase a hard copy. **Note: These texts do not come with access to any software.**

Please note that the Math 017 text by A. Brown is no longer available.

   Instructors may choose a text other than those listed above, but if so, please inform the Department Head of this choice.

Materials available to Math 017 instructors

On the Math Department's developmental maths website there are several documents that are available free of charge to instructors and students. The URL is:

http://faculty.ccp.edu/dept/math/developmental.html.

Sample Syllabus
This is available both in PDF and DOC format. A copy is appended to this document.

Elephant Materials with Exercises (a.k.a. Lecture Notes) and Supplementary Materials
These are suggested texts, written by math department faculty specifically for Math 017. They are available for free online and can be downloaded and printed by instructors and students. Hardcopies of these texts can also be purchased through the college bookstore. The *Supplementary Materials* are also included in the customized *Elementary Algebra* text from Pearson Publishing.

Math 017 Elementary Algebra Exercise Booklet (expected release date: Spring In-service 2011)
For those instructors who are not using the *Elephant Materials*, this booklet contains exercises drawn from those materials and are consistent with the required course material and conform to exercises seen on the final. It includes review exercises for Arithmetic in an appendix. Instructors may use this booklet to supplement a separate text. It is not intended to be used without a supporting text since it contains only exercises and no explanation of concepts or techniques.
The booklet can be downloaded and duplicated as needed.

Final Exam Topics and Sample Final Exam Problems
This document clearly explains how the Standard Departmental Final Exam is constructed and provides the list of *all* possible final exam problems (see section V).

Student Guide to the Standard Departmental Final Exam (expected release date: Spring break 2011)
This contains an abbreviated version of the *Final Exam Topic and Sample Final Exam Problems* document as well as the *Grading Rubric*. This is designed to be circulated to students.

Grading Rubric for the Final Exam
This explains in detail how instructors are expected to mark the Standard Departmental Final Exam.

Faculty are encouraged to review the *Grading Rubric* with students as well as direct them to the department website for information about the Standard Departmental Final Exam.

V. THE COMPOSITION OF THE STANDARD DEPARTMENTAL FINAL EXAM.

Final Exam Problem Categories
Final exam problems have been grouped according to 59 categories. The first nine are purely arithmetic and the remaining 50 are algebraic and vary in difficulty. The 50 are divided into subcategories by difficulty from "easy" to "very difficult":

- o 9 Arithmetic categories   (A)
- o 13 Easy categories   (E)
- o 24 Basic categories   (B)
- o 9 Difficult categories   (D)
- o 4 Very difficult categories   (V)

Composition and Construction of the Final Exam
First, 45 categories will be selected: All 9 arithmetic categories will be included. From the algebraic categories, 8 categories will be selected at random from 13 "easy" categories, all "basic" categories will be represented, 3 out of the "difficult" categories, and 1 "very difficult" category. After this process we will have 45 categories. One question out of each such category will be selected at random. Thus, the test will consist of 45 questions. More examples for each category, can be found in the *Final Exam Topics and Sample Problems* document (see section IV).

Final Exam Problems
The descriptions of all of the final exam categories follow:

ARITHMETIC PART: 9 QUESTIONS

ARITHMETIC CATEGORY: Use all categories and randomly select 1 question from each category.

1A   Addition, subtraction, multiplication, or division of integers (using both: ÷ and fraction bar as a division sign) - up to 3 integers.

2A   Order of operations, integers only, two operations (only integers as an answer, no exponents).

3A   Additon and subtraction of fractions or fractions and integers (positive and negative).

4A   Multiplication of fractions and of fractions and integers (positive and negative).

5A   Division (using both ÷ and fraction bar) of fractions and fractions and integers (positive and negative).

6A   "Zero" category(number/0; 0/number; addition of opposite numbers; multiplication by 0).

      "Ten" category: Multiplication and division of decimals and integers by powers of ten.

7A   Addition, subtraction, multiplication and division of decimals (and integers).

8A   Exponential notation (fractions, integers, decimals)

9A   Addition, subtraction, multiplication and division including mixed number representations. Order of operation (up to 3 operations).

ALGEBRA PART: 36 QUESTIONS

EASY CATEGORY: Randomly select 8 categories and then 1 question from each category selected:

1E   Writing phrases (involving only one operation) as algebraic expressions.

2E   Ability to distinguish between an algebraic expression and equation.

3E   Solving linear equations (all variables on one side, no parentheses involved, no need for collecting terms, no fractions or decimals unless they appear as a solution).

4E   Solving a linear inequality (all variables on one side, no parentheses involved, no need for collecting terms, no fractions or decimals unless they appear as a solution).

5E   Graphing sets on a number line.

6E   Checking if a given integer is a solution of a linear equation (inequality) in one variable.

7E   Understanding "<" , "≤" and ">", "≥" notation. Using it to describe sets of numbers (phrases like "at least", "at most", "not less", "not more").

8E   Rewriting the expression by replacing the variable with its value (only integers) and evaluating it, if possible. One operation needed for the evaluation.

9E   Solving literal equations (variable one is seeking will not appear in the denominator). One operation needed. No simplification needed at the end.

10E   If possible, rewriting algebraic expressions with the use of exponential laws (non-negative exponents; only one law used) .

11E   Removing parentheses in multiplication of a monomial by a polynomial (up to 3 terms). Performing numerical operations might be required but no use of exponential laws needed. No fractions, no decimals.

12E   Collecting like terms (2 terms only), if possible. No fractions, no decimals.

13E   Factoring an indicated expression (a variable or an integer). No use of exponential laws needed. No instances when "an entire term is factored" and thus "1" becomes a term after factorization.

BASIC CATEGORY: Use all categories and the randomly select 1 question from each category:

1B   Simplifying an expression by performing numerical operations when possible. (may need to change the order of terms or factors). Performing an operation on fractions or on decimals might be needed.

2B   Simplifying algebraic expressions by applying exponential laws (only non-negative exponents; one variable, up to 2 types of operations. Performing an operation on fractions or on decimals might be needed.

3B   The Distributive Law: removing parentheses in multiplication of a monomial by a polynomial with up to 3 terms. No collecting terms needed at the end but numerical operations or application of exponential laws needed in the process. Performing an operation on fractions or on decimals might be needed.

4B   The Distributive Law: removing parentheses in multiplication of a binomial by a binomial. No collecting terms needed at the end but numerical operations or application of exponential laws needed in the process (no operations on fractions or decimals).

5B   Factorization of an indicated monomial (factorization of "an entire term" is and thus getting "1" as a term after factorization possible). No operations on fractions or decimals.

6B   Simplification of rational expressions. Factorization of a numerator OR a denominator (but not both) needed (unless simplification is not possible)

7B Understanding what it means that a number(s) is a solution of a given equation ("relatively" complicated evaluation needed). Performing an operation on fractions or on decimals might be needed.

OR

Ability to rewrite the expression and evaluating it, if possible (one instance of a variable). If evaluation is not possible, recognizing that it is not possible to evaluate. Performing an operation on fractions or on decimals might be needed.

8B Recognizing equivalent expressions by applying the following

- the order of terms of an expression can be change
- the order of factors of an expression can be changed

9B Expanding exponential expression; Rewriting expressions using exponential notation whenever possible. Understanding that the exponent pertains only to the closest expression.

OR

Evaluation of exponential expressions raised to the zero-th power.

OR

Identifying bases, exponents and numerical coefficients of exponential expressions.

10B Determining if rational expressions can be simplified and simplifying them. Factorization not needed.

11B Collecting like terms: more than one type of like terms in the expression (fractions and decimals used but not as coefficients of variables).

12B Solving linear equations with a variable on both sides. No fractions or parentheses involved. "No solution" or "all real numbers" as a solution possible. No operations on decimals needed.

13B Solving linear inequalities (no parentheses, no fractions, no decimals involved; if a variables is only on one side its coefficient will be negative). "No solution" or "all real numbers" as a solution possible.

14B "The difference of squares" factorization (formula not given).

15B Rewriting algebraic expression in terms of another variable. Only a direct substitution needed; "relatively easy" simplification.

16B Simplifying algebraic expressions by removing parentheses first, and then collecting like terms. Performing an operation on fractions or on decimals might be needed (no expressions of the form $(a \pm b)^2$)

17B Collecting like terms (if possible) involving operations on fractions, or decimals.

18B Solving linear equations (inequalities) when the removal of parentheses is needed; no fractions involved. "No solution" or "all real numbers" as a solution is a possibility. Operations on decimals might be needed.

19B Solving equations for a given variable. Factorization of this variable might be needed in the process. Variable might be on both sides of the equation. Variable could be in the denominator. No simplification needed at the end. More than one operation might be needed in the process.

20B Writing phrases as algebraic expressions (involving 2 operations).

21B Identifying linear equations and writing them in a standard form. Recognizing the value of parameters in the representation.

OR

Rewriting algebraic expressions to match a prescribed format and identifying the values of given variables.

22B Applying laws of exponents in order to evaluate an expression (up to two operations). Performing an operation on fractions or on decimals might be needed.

OR

Factoring out - 1

23B Removing parenthesis form expressions of the form $(a \pm b)^2$ and simplifying them by collecting like terms.

24B Evaluation of an algebraic expression when the value of a part of the algebraic expression is given (rather than the value of the variables). No rewriting the expression in its equivalent form is needed.

DIFFICULT CATEGORY: randomly select 3 categories and then 1 question from each category selected:

1D Ability to rewrite the expression by substituting (up to 2 substitutions) value of variable(s) and then evaluating the expression, if possible. If evaluation is not possible, recognizing that it is not possible to evaluate. "More challenging" examples.

2D Recognizing equivalent expressions. Applying more than one of the following rules at a time.
- the order of terms of an expression can be changed
- the order of factors of an expression can be changed

3D Simplifying expressions involving exponential expressions ("relatively difficult examples"). Operations on fractions or decimals might be needed.

4D Applying the Distributive Law when removing parentheses in multiplication of a binomial by a trinomial. Collecting terms is needed.

5D Factoring an indicated expression involving parentheses, fractions or decimals.

6D Rewriting an algebraic expression in terms of a designated variable when a rewriting of the expression in an equivalent form is needed.

7D Solving linear equations (inequalities) involving fractions. "No solution" or "all real numbers" as a solution is a possibility.

8D Solving equations for a given variable. Factorization of this variable might be needed in the process. Variable could be in the denominator. Simplification at the end required.

9D Evaluating algebraic expressions when the value of a part of it is given (rather than the value of variables). Rewriting the original expression in some equivalent form is required to make the needed substitution.

VERY DIFFICULT CATEGORY: randomly select 1 category and then 1 question from the category selected:

1V Writing phrases as algebraic expressions and then simplifying them:
- using the laws of exponents
- removing parentheses and collecting like terms.

2V Rewriting algebraic expressions in terms of a designated variable requiring "challenging" simplifications.

3V "Non standard" factoring of the difference of squares, difference (sum) of cubes (formula for the difference/sum of cubes given but students need to know the formula for the difference of squares should).

4V Replacing up to 2 variables with an algebraic expression and solving the resulting equation.

VI. Pearson's *MyLabsPlus*

The Pearson Learning Solutions edition of *Elementary Algebra* comes packaged with an Access Kit to Pearson's online support software suite called *MyLabsPlus*. The kit is typically a cardboard insert and is easily overlooked or misplaced. Replacing a lost Access Kit is may be costly.

It is very important that students not discard the access kit.

The software suite includes the *MyMathLab* and *MyMathTest* modules as well as other content. Directions for students to access this software are in the front of the Pearson textbook. Once a student enters his or her access code, he or she does not need to do it again, and can access the software from any computer that is equipped with *Internet Explorer* or other compatible web browser.

The department does not require the use of this software and instructors do not need to set up anything for it; students can still access it and benefit from it without the need for instructors to create content. To learn more about the features of *MyLabsPlus* go to www.mylabsplus.com.

However, some instructors have found value in incorporating *MyLabsPlus* into their Math 017 courses (and others). Creating homework, quizzes and tests online for students to do is relatively simple and they are marked and tracked automatically by the software. Student success, progress and time-on-task are all noted in an instructor's tools menu and grade book. There are professional development opportunities for instructors who wish to learn more about using *MyLabsPlus.*

For classes who are not using the Pearson text, access to *MyLabsPlus* can be purchased by students directly from the Pearson website. **The cost of *MyLabsPlus* access separately is slightly *more* expensive than the Pearson text.**

VII. Student Support through the Learning Lab

Students can find help in the **Learning Lab for Math in room B2-36** weekdays and in room B1-28 Monday through Thursday evenings and Saturdays on Main Campus. During Fall and Spring semesters, free peer-tutoring is available beginning with the second week of classes for all current CCP students and free, weekly workshops begin in the third week of the semester. The peer tutors are experienced CCP students who have taken many of the courses in which they tutor. Math specialists also tutor as well as lead workshops. Check at Regional Centers for days and times of services. Also, during summer sessions, offerings may vary.

If you have questions concerning services provided by the Learning Lab please contact 215.751.8481.

Appendix – Sample Syllabus

On the subsequent pages is a sample syllabus for Math 017. An electronic copy is available at:

http://faculty.ccp.edu/dept/math/developmental.html

Math 017 - Syllabus

Instructor:
Office:
Phone:
E-mail:
Website:
Office Hours:

The Course: This basic Algebra course will introduce variables immediately. Variables are letters that represent number values. To this end, all types of number values will be incorporated into all the lessons so as to continue to reinforce operations with numbers. Evaluation of algebraic expressions will be emphasized and no calculators will be used in those evaluations. Correct mathematical format will be stressed and expected when working all problems, including class work/homework and exams. Topics will be studied in depth with correct language and notation emphasized.

No calculators will be used in this class: The use of calculators on tests and quizzes will not be permitted. It is recommended that you do not use calculators outside of the classroom when working on assignments. The purpose of assignments outside of class is to prepare you for the tests and quizzes, and this goal can be best achieved if you do not use a calculator.

Materials/Textbook:

Contacting Instructor: The telephone number listed has voice mail. Please call when absent or when making an appointment. If you contact the instructor by e-mail, please include "Math 017" in the subject line and sign your e-mail (with your first and last name) so the instructor will know who has written the e-mail.

MyCCP/MyCourses: As a student in this class, you have access to a website area devoted to
this class. Going to MYCCP and selecting MyCourses from the Top Line menu can find it.
        Select this particular course and you will see links to, among other things, a list of members of this class and an easy way to e-mail them along with your instructor. You will also see a link where files can be stored for your use such as homework assignments, supplementary materials, etc. – anything your instructor chooses to download to this space.

Help available: You can find help in the Math Learning Lab in room B2-36 weekdays and in room B1-28 Monday- Thursday evenings and Saturdays. Free, peer tutoring is available beginning with the second week of classes for all current CCP students. The peer tutors are experienced CCP students who have taken many of the courses in which they tutor. Free, weekly workshops, which begin in the third week of classes are also available to all CCP students. Check at Regional Centers for days and times of services. Also, during summer sessions, offerings may vary.

Attendance: Each student is required to attend every class meeting on time. Students are responsible for all work missed due to absence. Attendance will be taken at the beginning of each class. Students who arrive after taking roll or leave the class early are considered to be late. If you are late three times it will be counted as one absence.
        If a student misses class more than once during the first 3 weeks or more than twice during the first 7 weeks, the attendance will be reported to the college as unsatisfactory. Students who must miss class more than once during the first 3 weeks or more than twice during the first 7 weeks should discuss their situation with me. Any student who is absent for the equivalent of two weeks may be dropped.

Inclement weather: In the event of inclement weather there are several ways of determining whether CCP is open. You may listen for CCP's school closing number 238 (for day classes) and 2238 (for evening classes) on KYW radio at 1060 on the AM dial or check KYW's school closing web page at http://www2.kyw1060.com/schools/ or for a price you may call KYW's school closing phone number at 1-900-737-1060.

Homework/Quizzes: Homework will be assigned at the end of almost every class meeting. Students are responsible for keeping track of the assignments. Please remember, that you will not get full credit if you do not display your solution in the correct way, or do not use the correct language or notation (for example, one common mistake students make is to use the '=' sign incorrectly or not to use it at all).
        Homework will be collected in class and graded or given to you in a form of a quiz (you will be asked to solve in class problems similar to those in the assigned homework). You are encouraged to cooperate with other students and ask questions about homework, but at the end you are expected to write your answer independently from the others. Homework will be collected

at the beginning of the class. It will not be accepted after its due date. The lowest three homework grades will not be counted towards your final grade.

Tests: there will be four in-class tests along with the Final Exam. No in-class test will be dropped.

Missed tests: Missed tests can be made up only if a student has a justifiable excuse (as listed in the Students' Handbook). If you know beforehand that you will have to miss an exam, please contact me, so you can take the exam in advance of the rest of the class. In case of emergencies impossible to foresee, to be 'eligible' for a make-up exam, please contact me as soon as possible (e-mail or voice-mail). Once it is determined that you indeed have a legitimate excuse, you will be given a make-up exam during the Final Exams Week.

Final Exam will be given by the department. It will be comprehensive (all topics covered) and will consist of algebra along with a section devoted to arithmetic questions (20% of the exam). When studying algebra you will have plenty of opportunities to review and get very proficient with arithmetic; KEEP PRACTICING. You can find a list of the arithmetic requirements as well as the requirements for the algebraic part of the exam, together with some examples, at http://faculty.ccp.edu/dept/math/devmath.html

Grading system. This course is a three credit course that does not apply towards graduation credits with three grades possible:

P: representing a pass grade allowing you to register for the next course in the sequence
MP: representing a making progress grade requiring you to repeat this class
F: a failure grade requiring you to repeat this class.

The grades will be assigned according to the following rules:

P: 65% or above overall average for the semester. Student must take a final in order receive a P. The average in the class will be determined based on the following factors:
Homework/Quizzes: 15%
Tests: each out of four tests will count for 15%; thus, overall 60%
Final Exam: 25%

MP: To receive an **MP** grade, students must **complete all requirements** for the course. Requirements include attendance (not missing more than equivalent of 2 weeks of study), punctuality (being late no more than 3 times), completing all assignments, doing homework, taking all tests, quizzes, and a final exam. Students should be truly making progress: showing improvement and demonstrating the ability to pass the course given more time to do so. A student can get an **MP** grade with a lower average than a student who gets an **F**.

F: A grade of F is given if a student does not complete all requirements for the course   or shows little progress during the semester.

Appropriate Classroom Behavior:

1.   Please be on time for class. It is distracting to other students when people arrive late.
2.   Please switch off pagers and cell phones before entering the classroom. Please do not send text messages and do not use headphones during class time.
3.   Please be courteous and considerate to your other classmates and to me.
4.   Please do not eat in the classroom.
5.   Please do not talk (even about math issues) during the class, unless we are doing group work. If you have a question, please raise your hand and wait for me to recognize you.
6.   Please do not walk in and out of the classroom. In case of an emergency, please leave quietly.
7.   If you have any personal questions (for example: 'I was absent last time, can I get my test back'), please come and discuss it with me during a break, after a class, or during my office hours, NOT during the instruction time.
8.   Please pay as much attention to your instructor as you can.
9.   Do not bring children to the classroom.

Note: If you break one of these rules, I will first remind you of it. But if you break the rule again, unfortunately, I will have to ask you to leave the classroom. If I ask you to leave, please leave. You may return the next class, and I will not penalize you further for the earlier infraction.

(NO CALCULATORS PERMITTED)

Week 1	Variables and algebraic expressions, Evaluation of algebraic expressions
Week 2	Evaluation of algebraic expressions - order of operations.
Week 3	Equivalent algebraic expressions.
Week 4	Review for Test 1 **Test 1**
Week 5	Operations on power expressions with non-negative integer exponents.
Week 6	Multiplication of algebraic expressions, The Distributive Law, Factoring out a common factor and -1, Rational expression: simplification.
Week 7	Addition and subtraction of algebraic expressions.
Week 8	More complicated evaluation of algebraic expressions, Expressing a given variable in terms of the others, Substitution of not only numbers but also algebraic expression.
Week 9	Review for Test 2 **Test 2**
Week 10	Generalities on equations: solution, The difference between algebraic expressions and equations, Solving linear equations.
Week 11	Solving linear equations – continuation, Literal expression, Review for Test 3.
Week 12	**Test 3** Linear Inequalities, Graphing sets of the type $x < a$, $x \leq a$ on a number line.
Week 13	Definition of a linear equation, Recognizing and matching patterns- writing expressions in a prescribed way, Factoring the difference of two squares.
Week 14	Review for Test 4 **Test 4** Review for the Departmental Exam
Week 15	**Departmental Exam**