Course Syllabus
Developmental Mathematics - DMAT 0305
Lecture
Fall 2019 (8-week course)

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Course Syllabus

Developmental Mathematics - DMAT 0305
Lecture
Fall 2019 (8-week course)

MATH/SCIENCE DIVISION OFFICE
Location: P330
Telephone: 972-273-3500
Division Office Hours
Monday - Thursday: 8:00 am - 6:00 pm
Friday: 8:00 am - 4:30 pm

This course syllabus is intended as a set of guidelines for DMAT 0305. Both North Lake College and your instructor reserve the right to make modifications in content, schedule, and requirements as necessary to promote the best education possible within prevailing conditions affecting this course.

Instructor Information

Instructor: Samiunnabi M. Hossain
Email: s.hossainr@dcccd.edu
Office Phone: 972-273-3500
Office: P330
Office Hours: Monday: 1:00 – 2:00 PM

Course Information

Course title: DMAT 0305 77202
Credit hours: 3 credit hours
Class meeting time: MW 09:30 AM - 12:20 PM

Class location: C 208

Course description: The course supports students in developing skills, strategies, and reasoning needed to succeed in mathematics, including communication and appropriate use of technology.
Topics include the study of numeracy and the real number system; algebraic concepts, notation, and reasoning; quantitative relationships; mathematical models; and problem solving.

**Course prerequisites/co-requisites:** DMAT 0090 or an appropriate score on a placement test: TSI 336 – 349. Must take BASM 0053 concurrently with this course if TSI score is 310 – 335 (ABE Level 4).

**Required or Recommended Textbooks and Materials**

- **Textbook:** Beginning & Intermediate Algebra MLP Package
  Includes Access to MyLabsPlus and Beginning & Intermediate Algebra Text, 6th ed, by Elayn Martin-Gay

- Student ID number and email address listed in eConnect will be uploaded into the MyLabsPlus (MLP) software to provide the student access to the course materials. You can modify your email address and password once you have logged into the software the first time. However, it is not suggested to change your username and/or password in MLP. You may experience issues logging into MLP throughout the semester. Our systems update on a weekly basis. Every time they update, they also update the username and password back to the default (which is your student ID without the “e” in front). If you have questions or concerns contact the math division office at 7mathofc@dcccd.edu.

- **Calculator:** 4-Function, non-programmable calculator (suggested)

- **MyLabsPlus website:** Students should be directed to login to the North Lake MyLabsPlus website to begin their coursework. Students should type the following link in the address bar: [http://northlake.mylabsplus.com](http://northlake.mylabsplus.com) (Click here to go to the link directly). Please check any links in your eCampus templates to be sure they have the above web address.

**Technical Support**

New Website for Technical Support for MyLabsPlus support website: [Click here for link to technical support for Pearson](http://www.mythinksupport.com)

Technical support for eCampus: 972-669-6402
Technical support for MyLabsPlus: 1-888-883-1299

**Program-Level Outcomes**

As developed by the Texas Higher Education Coordinating Board

**Program-Level Outcome 1:** Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication

1. Written: Process and produce effective written communication adapted to audience, purpose, and time constraints.
2. Visual: Effectively interpret visual images or produce effective visual images.

**Program-Level Outcome 2:** Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
Program-Level Outcome 3: Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

**Course-Level Outcomes**

Upon successful completion of this course, students will:

1. Use appropriate symbolic notation and vocabulary to communicate, interpret, and explain mathematical concepts.
2. Define, represent, and perform operations on real numbers, applying numeric reasoning to investigate and describe quantitative relationships and solve real world problems in a variety of contexts.
3. Use algebraic reasoning to solve problems that require ratios, rates, percentages, and proportions in a variety of contexts using multiple representations.
4. Apply algebraic reasoning to manipulate expressions and equations to solve real world problems.
5. Use graphs, tables, and technology to analyze, interpret, and compare data sets.
6. Construct and use mathematical models in verbal, algebraic, graphical, and tabular form to solve problems from a variety of contexts and to make predictions and decisions.

**Course Outline (Calendar)**

Please see Appendix A attached to the end of this syllabus for a complete and detailed Course Outline (Calendar). Pay careful attention to the listed dates.

**SLO Assessment Information**

There are six (6) SLO Quizzes in MyLabsPlus (MLP) that are required to complete. Students are required to complete SLO Quizzes in a particular chapter/unit before taking the respective Mastery Test (i.e. practice exam).

**Means of Assessment of Course Learning Outcomes**

Course Learning Outcomes will be assessed by a variety of means.

1. A written exam will be given to assess each Learning Outcome.
2. Homework will be assigned and assessed either using the software component and/or by the instructor.
3. Observation of students as they interact in groups and discussions will be used to assess all outcomes.
4. Students will complete projects and learning activities that will address specific course learning outcomes.

**Evaluation Procedures**

**Homework**

Each student is required to purchase the online component (called MyLabsPlus) that comes with a new book.

Homework is the most important learning tool in a course.
• It reinforces classroom instruction.
• It provides an immediate and personal measure of your competence in the course.

The instructor’s role of facilitating learning is greatly enhanced for the student who has completed the homework. **The classroom environment is more favorable for learning when the student has studied the material in the text/software site, has tried to work the problems, and uses the classroom to get supplementary information and assistance that is not available in the text/software site.** Students are advised to earn at least a **75% on each homework assignment.** The student that earns a 100% on each homework assignment and gets help when necessary will be the most successful in this course.

**Time Requirements:**
- You can expect to spend a **minimum of 9 hours per week** on this class.
- The 9 hours = 3 hours of class time + at least 6 additional hours outside of class working through the material and homework.
- **If you cannot donate this amount of time to math homework, your success will be diminished.**

**Attendance**

Absences are generally detrimental to one’s performance in a course. You are expected to attend regularly in order that you may increase your chances for a successful semester in algebra. **Attendance will count as 5% of the final course grade.**

Tardies are strongly discouraged as they are disruptive to the class and thus the students who are on time. However, it is better to come late than not at all, as long as it is not a habit with one particular individual. If you anticipate a particular problem, please discuss it with me before or after class.

**This portion of the final course grade will be determined by the number of unexcused absences, using the following table:**

<table>
<thead>
<tr>
<th>Absences</th>
<th>Grade Earned</th>
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<tbody>
<tr>
<td>0 - 2</td>
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Students will be able to earn back attendance credit by attending the STEM Center (SC).

Lost attendance points can be earned back by attending the STEM Center (SC).
- Each 3 hours of active work in the STEM Center (SC) will = one missed day of class.
- Active work in the center must be documented by the center staff. Make-up sessions in the STEM Center (SC) must be completed within two weeks of the absence.
- Attendance in the lab cannot be used for extra credit.

**Tests**

There are two types of tests: mastery tests and written tests.

- Mastery tests (on MLP)
  - The mastery test will help determine your readiness to take the written test.
  - Students should strive to earn at least a 75% on the mastery test before taking a written test. Although this is not a requirement, students that earn a 75% or better on the mastery test are more likely to pass the written exam and the course.
  - The deadline for mastery tests will be announced in class by your instructor.
  - Students will have limited attempts for each mastery test. Before retaking the mastery test, it is recommended that the first attempt be reviewed.
  - The highest grade on each chapter mastery test will be used to determine your mastery test average.

- Written Tests
  - All written tests will be taken in the testing center of the campus in which you attend class unless otherwise approved by the instructor.
  - Written tests will be accessed via eCampus and the NLC-DMAT-0305 Testing Community ~ See eCampus for more details.
  - The written tests are the main part of your course grade.
  - There are five (5) written chapter tests and one final exam.
  - All written tests will be graded according to the Guidelines for Homework Assignments and All Tests (see eCampus).
  - Students will be allowed to take ONLY one test each week. No exceptions will be made without written permission from your instructor. If you take a second test in a week and the written permission is not given, your test will not be graded. The only test that may be taken during finals week is the final, and it will be taken in the classroom according to the final exam schedule.
  - Only ONE (1) written exam can be taken during the week before finals (week 15).
  - Students will not be allowed to take multiple exams at one time during
the last 3 weeks of the course. Exams should be taken according to the course calendar.
  o The right to retake an exam is solely at the discretion of the instructor.

Special note on written tests:
  o All written tests will be based on homework problems that are assigned throughout the semester.
  o All written tests will test your understanding of the course concepts that are covered throughout the semester and through various forms of questioning and application problems. This means the exams are not identical to problems you have worked but designed to test your understanding of the concepts presented.
  o The homework and mastery test are designed to prepare you to succeed on the written chapter test.

• Final Exam
  o The final exam will be taken after all coursework has been completed.
  o The final exam covers chapters 1, 2, 3, 4, 5 and 6.
  o The final exam is required and will be taken in the classroom at the time specified in the Official Final Exam Schedule.

**Testing Center Information (Room L240)**

The Testing Center has moved to L240. Please visit the Testing Center website (https://www.northlakecollege.edu/services/academic-support/testing-centers/pages/default.aspx) for information about policies, procedures, and hours.

**Grading Scale**

Computing Your Grade:
Written Chapter Tests:  60%
Homework:  15%
Attendance:  5%
Daily Work:  10% (Includes Mastery tests, quizzes, SLO activities, projects, etc.)
Final Test:  10%

Your course grade will be determined by the following:
A = 90 – 100%
B = 80 – 89%
C = 70 – 79%  *The letter grade of D is no longer given in DMAT classes*
F = 0 – 69%;  Grade of F or E (if earned) will be reported.

**Grade Alternatives**

I – Incomplete
Incomplete Details
  • Only given in EXTREME CIRCUMSTANCES or if the student has only the last chapter to complete.
  • Requires instructor permission and consent by the Dean of the department.
**Availability of Course Materials**

Access to coursework on MyLabsPlus is dependent upon the beginning and ending of the semester. Students may not be able to access their coursework except under instructor supervision and during their enrolled semester.

**Discipline/ Course/ Department/ Policies**

**Calculators**

Calculators will be permitted on tests 2 - 5. You are also encouraged to use them on the homework for chapters 2 - 5. Four-function calculators will be provided for all tests taken in the testing center.

**Classroom Policies**

- The use of cell phones or other similar devices is prohibited during class time. You are expected to turn OFF all such devices BEFORE entering the classroom.
- No food or drink in the classroom.
- Distractive talking or any disorderly conduct is prohibited. Please be courteous of others.
- Taping of lectures is not allowed unless permission is obtained from the instructor.
- Follow the Code of Student Conduct for model behavior.
- Do not beg for points; you earn them.

**Cell Phone Use:**

The use of cell phones or other similar devices is prohibited during class time. You are expected to turn OFF and put away all such devices BEFORE entering the classroom.

**Disruptive Behavior:**

Distractive talking will not be tolerated. A warning will be given and if not heeded, the student will be asked to leave.

**The STEM Center (Free Tutoring)**

The STEM Center (SC) in L-137 and L-139 provides assistance and resources free to students enrolled in mathematics and developmental mathematics classes at North Lake College.

The SC is a great place to bring a study group, study quietly, get help with math classes, and use the center’s various resources.

Services offered:

- Tutorial services in all math courses taught at North Lake College
- Computers for use by students enrolled in courses that have an Internet component such as homework systems (i.e., MyLabsPlus, ConnectMath)
- Graphing calculators for use in the center
- A quiet area to study upon request
- Opportunity for students to make up class absences
- Whiteboards and table space for study groups
• Content workshops covering how to use graphing calculators, course topics, review sessions, and study skills

Contact the Math Center Manager in L-137 for questions regarding the services offered.

**Hours of Operation (Fall/Spring)**
Monday – Thursday: 9 a.m. – 6 p.m.
Friday & Saturday: 9 a.m. – 2 p.m.
Sunday: closed

**Financial Aid Certification of Attendance**

For DMAT 0305 lecture courses: To be certified as attending, a student must complete all of the assignments due on or before the Certification/Census Date AND earn at least a score of 70% on each assignment.

**Institutional Policies**

The link has updated info on campus items: [www.northlakecollege.edu/syllabipolicies](http://www.northlakecollege.edu/syllabipolicies)

**Penalty for Academic Dishonesty**

Academic dishonesty may result in the following sanctions, including, but not limited to:
1. A grade of zero or a lowered grade on the assignment or course.
2. A reprimand.
3. Suspension from the college.

**Drop Policy**

If you are unable to complete this course, you must officially withdraw by Thursday, October 3rd, 2019. Withdrawing is a formal procedure which you must initiate; your instructor cannot do it for you. All Dallas County Community Colleges charge a higher tuition rate to students registering the third time for a course. This rule applies to the majority of credit and Continuing Education / Workforce Training courses. Developmental Studies and some other courses are not charged a higher tuition rate. Third attempts include courses taken at any DCCCD college since the fall 2002 semester. For further information, go online to: [http://www.DCCCD.edu/thirdcourseattempt](http://www.DCCCD.edu/thirdcourseattempt).

**Stop Before You Drop**

**DO NOT DROP UNTIL YOU SPEAK WITH YOUR INSTRUCTOR.**

For students who enrolled in college level courses for the first time in the fall of 2007, Texas Education Code 51.907 limits the number of courses a student may drop. You may drop no more than 6 courses during your entire undergraduate career unless the drop qualifies as an exception. Your campus counseling/advising center will give you more information on the allowable exceptions. Remember that once you have accumulated 6 non-exempt drops, you cannot drop any other courses with a “W”. Therefore, please exercise caution when dropping courses in any Texas public institution of higher learning, including all seven of the Dallas County Community Colleges. For more information, you may access: [https://www1.dcccd.edu/coursedrops](https://www1.dcccd.edu/coursedrops).

**Counseling Services**

Counseling services for personal issues are provided to all students currently enrolled at North Lake College. These services are provided by licensed professionals who are bound
by confidentiality (within ethical parameters) at no charge. With the assistance of a counselor, students are able to identify, understand, resolve issues and develop appropriate skills. To make an appointment call 972-273-3333 or visit A 430.
## Appendix A.1
### DMAT 0305 Lecture Weekly Course Calendar

<table>
<thead>
<tr>
<th>Week</th>
<th>Section to be covered</th>
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| **Week 1** | Orientation  
1.2 Symbols and Sets of Numbers  
1.3 Fractions  
1.4 Introduction to Variable Expressions and Equations  
SLO Quiz 1 (Operations on Real Numbers) – see MyLabsPlus  
1.5 Adding Real Numbers  
1.6 Subtracting Real Numbers  
1.7 Multiplying and Dividing Real Numbers  
1.8 Properties of Real Numbers  
Chapter 1 Mastery Test – see MyLabsPlus  
**Chapter 1 Written Test 1 – Testing Center** |
| **Week 2** | 2.1 Simplifying Algebraic Expressions  
2.2 The Addition and Multiplication Properties of Equality  
2.3 Solving Linear Equations  
2.4 An Introduction to Problem Solving  
2.5 Formulas and Problem Solving  
SLO Quiz 2 (Applications) – see MyLabsPlus |
| **Week 3** | 2.6 Percent & Mixture Problem Solving  
SLO Quiz 3 (Percentages) – see MyLabsPlus  
2.8 Solving Linear Inequalities  
SLO Quiz 4 (Solving Inequalities) – see MyLabsPlus  
Chapter 2 Mastery Test – see eCampus  
**Chapter 2: Written Test 2 – Testing Center**  
3.1 Reading Graphs and the Rectangular Coordinate System  
3.2 Graphing Linear Equations  
3.3 Intercepts |
| **Week 4** | 3.4 Slope and Rate of Change  
3.5 Equations of Lines  
SLO Quiz 5 (Modeling and Predictions) – see MyLabsPlus  
4.1 Solving Systems of Linear Equations by Graphing  
SLO Quiz 6 (Compare Two Data Sets) – see MyLabsPlus  
4.5 Systems of Linear Equations and Problem Solving |
| **Week 5** | Chapter 3 & 4 Mastery Test – see MyLabsPlus  
**Chapter 3 & 4: Written Test 3 (sections 3.1 – 3.5, 4.1, 4.5) – Testing Center**  
5.1 Exponents  
5.2 Polynomial Functions and Adding and Subtracting Polynomials  
5.3 Multiplying Polynomials  
5.4 Special Products  
5.5 Negative Exponents and Scientific Notation  
5.6 Dividing Polynomials  
Chapter 5 Mastery Test – see eCampus  
**Chapter 5: Written Test 4 – Taken in Testing Center** |
<table>
<thead>
<tr>
<th>Week</th>
<th>Sections to be covered</th>
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| Week 6 | 6.1 The Greatest Common Factor and Factoring by Grouping  
| | 6.2 Factoring Trinomials of the Form $x^2 + bx + c$  
| | 6.3 Factoring Trinomials of the Form $ax^2 + bx + c$ and Perfect Square Trinomials |
| Week 7 | 6.4 Factoring Trinomials of the Form $x^2 + bx + c$ by Grouping  
| | 6.5 Factoring Binomials  
| | Chapter 6 Mastery Test – see MyLabsPlus  
| | Chapter 6: Written Test 5 – Testing Center or Class  
| | *All tests/retests must be completed on or before Friday of this week.*  
| | *Only ONE written exam will be allowed this week.* |
| Week 8 | Review for Final Exam  
| | Final Exam – See Final Exam Schedule for Day and Time  
| | Final Exam Covers Chapters 1 - 6 |
# Course Outline

<table>
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<th>Section</th>
<th>Objectives</th>
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| **1.2 Symbols & Sets of Numbers**  
(Examples 3 – 7) | 2) Translate sentences into mathematical statements.  
3) Identify natural numbers, whole numbers, integers, rational numbers, irrational numbers, and real numbers.  
4) Find the absolute value of a real number.  
(Homework: 25, 33, 37, 41, 55, 57, 59, 61, 63, 65, 67, 69) |
| **1.3 Fractions**  
(Examples 1 – 9) | 1) Write fractions in simplest form  
2) Multiply and divide fractions.  
3) Add and subtract fractions.  
4) Perform operations on mixed numbers.  
(Homework: 15, 21, 25, 29, 33, 37, 43, 49, 51, 57, 69, 71, 75, 93) |
| **1.4 Introduction to Variable Expressions & Equations**  
(Examples 1 & 2) | 1) Define and use exponents and the order of operations.  
(Homework: 1, 3, 5, 13, 15, 19, 21, 23, 27) |
| **1.5 Adding Real Numbers**  
(Examples 1, 2, 6 – 8) | 1) Add real numbers.  
2) Solve applications that involve addition of real numbers.  
(Homework: 3, 7, 31, 41, 45, 57) |
| **1.6 Subtracting Real Numbers**  
(Examples 2 – 5, 7 – 8) | 1) Subtract real numbers.  
2) Add and subtract real numbers.  
4) Solve applications that involve subtraction of real numbers.  
(Homework: 1, 5, 9, 13, 41, 43, 51, 67, 69) |
| **1.7 Multiplying & Dividing Real Numbers**  
(Examples 2, 4, 7 – 10) | 1) Multiply real numbers.  
3) Divide real numbers.  
4) Evaluate expressions using real numbers.  
(Homework: 35, 43, 45, 63, 65, 69, 73, 81, 111, 122) |
| **2.1 Simplifying Algebraic Expressions**  
(Examples 1 – 8) | 1) Identify terms, like terms, and unlike terms.  
2) Combine like terms.  
3) Use the distributive property to remove parentheses.  
4) Write word phrases as algebraic expressions.  
(Homework: 1, 3, 15, 17, 23, 33, 35, 41, 53, 81, 97) |
| **2.2 Addition & Multiplication Property of Equality**  
(Examples 1 – 9) | 1) Define linear equations and use the addition property of equality to solve linear equations.  
2) Use the multiplication property of equality to solve linear equations.  
3) Use both properties of equality to solve linear equations.  
4) Write word phrases as algebraic expressions  
5) (Homework: 3, 15, 21, 29, 33, 47, 57, 69, 77, 85, 103) |
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<th>Objectives</th>
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| **2.3 Solving Linear Equations** *(Examples 1 – 7)* | 1) Apply general strategy for solving a linear equation.  
2) Solve equations containing fractions.  
3) Solve equations containing decimals.  
4) Recognize identities and equations with no solution.  
(Homework: 9, 17, 23, 31, 37, 41, 43, 65) |
| **2.4 Introduction to Problem Solving** *(Examples 3 – 6)* | 2) Solve problems involving relationships among unknown quantities.  
3) Solve problems involving consecutive integers.  
(Homework: 11, 25, 27, 35, 55) |
| **2.5 Formulas & Problem Solving** *(Examples 1 – 3, 5 – 8)* | 1) Use formulas to solve problems.  
2) Solve a formula or equation for one of its variables.  
(Homework: 1, 5, 9, 15, 23, 31, 35, 45) |
| **2.6 Percent & Mixture Problem Solving** *(Examples 1 – 4, 6, 7)* | 1) Solve percent equations.  
2) Solve discount and markup problems.  
3) Solve mixture problems  
(Homework: 1, 3, 5, 7, 13, 23, 25, 27, 29, 23, 39) |
| **2.8 Solving Linear Inequalities** *(Examples 1 – 8, 13)* | 1) Define linear inequality in one variable, graph solution sets on a number line, and use interval notation  
2) Solve linear inequalities  
4) Solve inequality applications.  
(Homework: 1, 3, 5, 7, 11, 13, 15, 17, 21, 23, 69, 71) |
| **3.1 Reading Graphs & the Rectangular Coordinate System** *(Examples 3, 5 – 7)* | 2) Define the rectangular coordinate system and plot ordered pairs of numbers.  
4) Determine whether an ordered pair is a solution of an equation in two variables.  
5) Find the missing coordinate of an ordered pair solution, given one coordinate of the pair.  
(Homework: 17, 19, 21, 23, 25, 39, 41, 45, 49, 57) |
| **3.2 Graphing Linear Equations** *(Examples 1 – 5)* | 1) Identify linear equations.  
2) Graph linear equation by finding and plotting ordered pair solutions.  
(Homework: 1, 5, 9, 11, 17, 25, 27, 33) |
| **3.3 Intercepts** *(Examples 1 – 7, 9, 10)* | 1) Identify intercepts of a graph.  
2) Graph a linear equation by finding and plotting intercepts.  
3) Identify and graph vertical and horizontal lines.  
(Homework: 1, 3, 5, 7, 13, 19, 25, 27, 31) |
| **3.4 Slope and Rate of Change** *(Examples 1 – 8)* | 1) Find the slope of a line given two points of the line.  
2) Find the slope of a line given its equation.  
3) Find the slope of horizontal and vertical lines.  
4) Compare slopes of parallel and perpendicular lines  
(Homework: 1, 5, 9, 11, 15, 17, 19, 21, 27, 29, 35, 41, 45, 61) |
| **3.5 Equations of Lines** *(Examples 3 – 8)* | 2) Option 1: Use the slope-intercept form to write an equation of a line.  
3) Option 2: Use the point-slope form to find an equation of a line given its slope and a point of the line.  
4) Use the point-slope form to find an equation of a line given two points of the line.  
5) Find equations of vertical and horizontal lines.  
6) Use the point-slope OR slope intercept form to solve problems.  
(Homework: 23, 25, 31, 33, 39, 41, 53, 57, 69) |
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| **4.1 Solving Systems of Linear Equations by Graphing**  
(Examples 1 – 3, 5 – 8) | 1) Determine if an ordered pair is a solution of a system of equations in two variables.  
2) Solve a system of linear equations by graphing.  
3) Without graphing, determine the number of solutions of a system.  
(Homework: 1, 3, 5, 9, 13, 17, 25, 33, 43, 47) |
| **4.5 Solving Systems of Linear Equations & Problem Solving**  
(Example 1) | 1) Solve problems that can be modeled by a system of two linear equations.  
(Homework: 1, 3, 5, 7, 9) |
| **5.1 Exponents**  
(Examples 1 – 7, 9, 10) | 1) Evaluate exponential expressions.  
2) Use the product rule for exponents.  
3) Use the power rule for exponents.  
4) Use the power rule for products, and quotients.  
5) Use the quotient rule for exponents, and define a number raised to the 0 power.  
6) Decide which rule(s) to use to simplify an expression.  
(Homework: 1, 7, 11, 13, 23, 31, 35, 45, 47, 49, 65, 73) |
| **5.2 Polynomial Functions & Adding and Subtracting Polynomials**  
(Examples 1 – 3, 6 – 13) | 1) Define polynomial, monomial, binomial, trinomial, and degree.  
3) Simplify a polynomial by combining like terms.  
4) Add and subtract polynomials.  
(Homework: 1, 3, 5, 27, 29, 33, 39, 41, 53, 55, 75, 77) |
| **5.3 Multiplying Polynomials**  
(Examples 1 – 9) | 1) Multiply monomials.  
2) Use the distributive property to multiply polynomials.  
(Homework: 1, 5, 9, 13, 21, 23, 27, 29, 37, 43) |
| **5.4 Special Products**  
(Examples 1 – 6) | 1) Multiply two binomials using the FOIL Method.  
2) Square a binomial.  
3) Multiply the sum and difference of two terms  
4) Use special products to multiply binomials  
(Homework: 31, 33, 37, 43, 49, 77) |
| **5.5 Negative Exponents & Scientific Notation**  
(Examples 1 – 3, 4a, 4c, 5, 6) | 1) Simplify expressions containing negative exponents.  
2) Use all the rules and definitions for exponents to simplify exponential expressions.  
3) Write numbers in scientific notation.  
4) Convert numbers from scientific notation to standard form.  
(Homework: 1, 3, 7, 17, 27, 69, 71, 81, 83, 87) |
| **5.6 Dividing Polynomials**  
(Examples 1 – 6) | 1) Divide a polynomial by a monomial.  
2) Use long division to divide a polynomial by another polynomial.  
(Homework: 1, 5, 9, 13, 15, 17, 19) |
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| **6.1 Greatest Common Factor & Factor by Grouping** *(Examples 1 – 5, 9, 11, 15)* | 1) Find the GCF of a list of integers.  
2) Find the GCF of a list of terms.  
3) Factor out the GCF from a polynomial.  
4) Factor a polynomial by grouping.  
(Homework: 2, 5, 29, 35, 43, 49, 55, 57, 79) |
| **6.2 Factor Trinomial of the form $x^2 + bx + c$** *(Examples 1 – 4, 8 – 10)* | 1) Factor a Trinomial of the form $x^2 + bx + c$  
2) Factor out the GCF and then factor a trinomial of the form $x^2 + bx + c$  
(Homework: 1, 7, 11, 23, 25, 31) |
| **6.3 Factor Trinomial of the form $ax^2 + bx + c$ & Perfect Square Trinomials** *(Examples 1, 3, 7, 8)* | 1) Factor trinomials of the form $ax^2 + bx + c$, where $a \neq 1$.  
2) Factor out a GCF before factoring trinomials of the form $ax^2 + bx + c$, where $a \neq 1$.  
3) Factor perfect square trinomials.  
(Homework: 7, 11, 17, 33, 39, 41, 75) |
| **6.4 Factor Trinomial of the form $ax^2 + bx + c$ by Grouping** *(Examples 1, 2)* | 1) Use the grouping method to factor trinomials of the form $ax^2 + bx + c$.  
(Homework: 1, 3, 9, 19, 23, 27) |
| **6.5 Factoring Binomials** *(Examples 1 – 3, 5, 8, 9)* | 1) Factor the difference of two squares.  
2) Factor the sum or difference of two cubes.  
(Homework: 1, 5, 11, 17, 23, 25, 29, 35, 39, 45) |