



Course Syllabus

Course Title: College Algebra

Term and Year:

Course and Section Number: MA 113

Time and Place: Asynchronous, Online

Number of Credit Hours: 3

Instructor: TBD

Office Location/Hours: TBD

Office Phone: TBD

Email: TBD

Course Description:

Topics include: solving equations, complex numbers, interval notation, graphing functions, transformations of functions, combining functions, composite functions, inverse functions, and systems of equations in two variables.

Prerequisites: None

Learning Outcomes: Upon completion of this course, the student should be able to:

1. Solve equations using an appropriate method (polynomials, radical, rational, absolute values, inequalities, exponential, and logarithmic),
2. Perform operations on complex numbers,
3. Write in interval notation,
4. Graph a variety of functions (linear, quadratic, cubic, rational, radical, absolute value, inverse functions, exponential, and logarithmic),
5. Graph functions using transformations,
6. Combine functions using the algebra of functions, specifying domains,
7. Form composite functions, specifying domains,
8. Find inverse functions, and
9. Solve systems of equations in two variables.

Required Text: This course utilizes OER (Open Educational Resources) materials at no cost to learners. All required reading is available in the online course room.

References: Please see the list of references at the end of this document.

Course Requirements: Students are expected to complete all discussion forums, homework assignments, and tests and to complete the final exam at the conclusion of the course.

Attendance/Participation: All students are expected to log in to their courses regularly throughout the week to receive instruction, materials, and updates from the instructor. It is your responsibility to check in and submit your assignments, complete your discussion board postings, and finish quizzes and exams by the due dates.

If you do not participate in the course, you will be counted absent. Simply logging in is not enough; you must submit/complete an assignment, post to a discussion board, or other similar assignment

tasks to avoid being counted absent. Instructors are required to submit attendance the Monday following each week of class.

This attendance is reported to the Financial Aid Department and may result in the loss of any financial aid refund you are expecting if you have not been participating in your courses. **In addition, you will be administratively dropped from the course if you are reported absent a total of three weeks.**

Completing the following actions will not count as present for this class:

- Logging into Moodle
- Reviewing Course Materials
- Any email or phone contact with the Instructor
- Submitting work early. One assignment must be submitted during each week to be counted present.

Grading/Evaluation:

The undergraduate course grading scale is as follows:

90-100% A	75-79% C+	60-64% D
85-89% B+	70-74% C	59% and below F
80-84% B	65-69% D+	

Grades will be calculated with discussion forums, homework assignments, tests, and the final exam. Please see the discussion forum rubric found on the “Start Here” page in the course for grading criteria and expectations.

This is a breakdown of the percentages of each category:

Discussion Forums: 20%
 Homework: 30%
 Tests: 30%
 Final Exam: 20%

Discussion Forum posts have two due dates. Your initial posts are due on Wednesdays at 11:59PM EST. Two replies to two different peers are due on Sundays at 11:59PM EST.

Be sure to read the [Netiquette Guidelines](#) in our course, under the Student Resources page for guidance on my expectations for your behavior in the discussion forums.

All other assignments are due on Sundays at 11:59PM EST, except during week 8. Week 8's materials are due on Saturday at 11:59PM EST, instead of Sunday, as the semester ends on a Saturday.

Make-up tests and redo tests are not accepted.

Late Policy: Late work will not be accepted.

Other Policies:

Class Decorum and Discipline: I will make sure to maintain a learning friendly online classroom environment. You will be treated with dignity and respect and the same is expected from you to me and your peers. Anything or any action that disrupts the class decorum is inexcusable and will be dealt with.

Academic Misconduct:

The University prohibits all forms of academic misconduct. Academic misconduct refers to dishonesty in examinations (cheating), presenting the ideas or the writing of someone else as one's own (plagiarism) or knowingly furnishing false information to the University by forgery, alteration, or misuse of University documents, records, or identification. Academic dishonesty includes, but is not limited to, the following examples: permitting another student to plagiarize or cheat from one's own work, submitting an academic exercise (written work, printing, design, computer program) that has been prepared totally or in part by another, acquiring improper knowledge of the contents of an exam, using unauthorized material during an exam, submitting the same paper in two different courses without knowledge and consent of professors, or submitting a forged grade change slip or computer tampering. The faculty member has the authority to grant a failing grade in cases of academic misconduct as well as referring the case to Student Life.

Plagiarism:

You are expected to submit your own work and to identify any portion of work that has been borrowed from others in any form. An ignorant act of plagiarism on final versions and minor projects, such as attributing or citing inadequately, will be considered a failure to master an essential course skill and will result in an F for that assignment. A deliberate act of plagiarism, such as having someone else do your work, or submitting someone else's work as your own (e.g., from the Internet, fraternity file, etc., including homework and in-class exercises), will at least result in an F for that assignment and could result in an F for the course.

Artificial Intelligence (AI) is prohibited: All work submitted by students in this course must be generated by the student. Students may not have another person or entity contribute to an assignment for them, which includes using AI. Students may not incorporate any part of an AI-generated response in an assignment, use AI to formulate arguments, use AI to generate ideas for an assignment, or submit work to an AI platform for improvement. Using an AI tool to generate content may qualify as academic misconduct in this course.

OR

Artificial Intelligence (AI) is allowed: Students may use AI tools on instructor-identified assignments in this course. To adhere to our scholarly values, students must cite any AI-generated material that informed their work. Using an AI tool without proper attribution may qualify as academic misconduct in this course. It is the responsibility of the student to verify the accuracy, reliability, and ethical implications of AI-generated content.

Electronic Devices:

Use of electronic devices including smart watches and cell phones is prohibited during exams or quizzes unless directly allowed by the instructor.

Student Resources:

Please visit the Student Resources tab in our course to find resources including technical support, tutoring, library resources, accommodations, accessibility, technology requirements, counseling services and many other resources.

Course Calendar/Schedule: Please see "Course Schedule" in course information tab.

References

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Course Mapping:

Week One: Radicals (LO1, 2, 4, 6)	
Learning Activities and Materials	Assessments
<p>Read:</p> <ul style="list-style-type: none"> • 1.3 Radicals and Rational Exponents (Scroll pages – approx.. 16 pages) (LO6) • 1.4 Polynomials (Scroll pages – approx.. 14 pages) (LO6) • 2.1 The Rectangular Coordinate Systems and Graphs (Scroll pages – approx. 17 pages) (LO4) • 2.2 Linear Equations in One Variable (Scroll pages – approx. 22 pages) (LO1)(LO4) • 2.4 Complex Numbers (Scroll pages – approx. 16 pages) (LO2) <p>Watch:</p> <ul style="list-style-type: none"> • Radicals (9:09) (LO6) • Rational Exponents (7:06) (LO6) • Simplify Radicals (3:41) (LO6) • Rationalize Denominator (3:32) (LO6) • Adding and Subtracting Polynomials (9:05) (LO6) • Multiplying Polynomials (5:00) (LO6) • Special Polynomial Products (9:11) (LO6) • Solving Rational Equations (12:56) (LO1) • Adding and Subtracting Complex Numbers (2:32) (LO2) • Multiply Complex Numbers (4:22) (LO2) • Multiplying Complex Conjugates (2:08) (LO2) <p>Raising the imaginary unit i to powers (4:42) (LO2)</p>	<p>Discussion Board</p> <p>Introduction Forum</p> <p>Chapter 1 Self-Reflection Discussion Forum (LO6):</p> <p>The chapter one material is a lot of review material that you should have already seen before this class. We will only cover sections 1.3 and 1.4 before moving on and into chapter 2. As you look at the material, does this look familiar to you? How are you feeling as you get started? Are there any topics you need more guidance on or more support with? If not, find a resource that might help someone else who is finding this more challenging.</p> <p>In your replies to peers, reflect on what they said. Are you in a similar situation? If they are worried and have not seen the material, offer some words of encouragement. You could also offer some resources that might help, like videos or websites that you have used before. If they are feeling confident about the material, take a look at the resources they shared and offer some feedback or ask them a thoughtful question.</p> <p>Homework from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • HW 1.3 Radicals and Rational Exponents (LO6) • HW 1.4 Polynomials (LO6) • HW 2.1 The Rectangular Coordinate System and Graphs (LO4)

	<ul style="list-style-type: none"> HW 2.2 Linear Equations in One Variable (LO1) (LO4) HW 2.4 Complex Numbers (LO2)
Week Two: Quadratic Equations (LO1, 2, 3, 4)	
Learning Activities and Materials	Assessments
<p>Read:</p> <ul style="list-style-type: none"> 2.5 Quadratic Equations (Scroll pages – approx. 16 pages) (LO1)(LO2) 2.6 Other Types of Equations (Scroll pages – approx. 11 pages) (LO1) 2.7 Linear Inequalities and Absolute Value Inequalities (Scroll pages – approx. 11 pages) (LO1)(LO3) 3.1 Functions and Function Notation (Scroll pages – approx. 30 pages) (LO3)(LO4) <p>Watch:</p> <ul style="list-style-type: none"> Determine if a Relation is a Function (6:18) (LO3) (LO4) The Vertical Line Test (5:35) (LO3) (LO4) Introductions to Functions (10:03) (LO3) Using the Vertical Line Test (2:56) (LO3) (LO4) One to One Functions (5:45) (LO3) Graphs as One to One Functions (3:36) (LO3) (LO4) How To Solve Quadratic Equations by Factoring (12:28) (LO1) The Zero-Product Property (6:09) (LO1) Quadratic Formula – Two Real Rational Solutions (3:15) (LO1) A Rational Equation with No Solution (5:07) (LO1) Solving an Equation with Rational Exponents Using Reciprocal Powers (3:43) (LO1) Solving Radical Equations part 1 of 2 (6:47) (LO1) Solving Radical Equations part 2 of 2 (5:11) (LO1) Interval Notation (6:33) (LO3) 	<p>Discussion Board:</p> <p>Quadratic Equations Discussion Forum (LO1)(LO2):</p> <p>For your original post, create a quadratic equation in the form of $f(x)=ax^2+bx+c$, where a does not equal 1.</p> <p>In your replies to two peers, you will follow these steps:</p> <ol style="list-style-type: none"> 1. If the post you are looking at has no replies, follow prompt 1. 2. If someone has done prompt 1 for that peer already, follow prompt 2. 3. If someone has done prompt 2 for that peer already, follow prompt 3. 4. If someone has done prompt 3 for this peer already, follow prompt 4. <p>Do not skip any steps. At no point should there be a prompt 2 answered if prompt 1 hasn't been done yet. Your replies do need to be written to two different peers.</p> <p>Prompt 1: What is the discriminant of their quadratic equation and what does it mean?</p> <p>Prompt 2: Solve for x. Show your work and either type out your steps or upload a photo of them legibly written out.</p> <p>Prompt 3: Compare the answers for prompt 1 and</p>

<ul style="list-style-type: none"> • Solving Linear Inequalities (8:40) (LO1) • How to Solve an Inequality (8:37) (LO1) • Absolute Value Equations (9:30) (LO1) • Compound Inequalities (10:01) (LO1)(LO3)(LO4) • Absolute Value Inequalities (10:29) (LO1)(LO3)(LO4) <p>Review:</p> <ul style="list-style-type: none"> • Complex Number Multiplication (Scroll pages – approx. 14 pages) (LO2) <p>Quadratic Equations (Scroll pages – approx. 12 pages) (LO1)(LO2)</p>	<p>prompt 2, do they match? -If they do not match, explain where the error is and why they don't match. -If they do match, look back to prompt 2's answer. Could they have solved it using a different method? ----If yes, show how. Solve for x using the other method and either type out your work or upload a photo of your work. ----If no, explain why.</p> <p>Prompt 4: Ask a thoughtful question to any of your peers in this thread about any of the work that has been done.</p> <p>Homework from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • HW 2.5 Quadratic Equations (LO1)(LO2) • HW 2.6 Other Types of Equations (LO1) • HW 2.7 Linear Inequalities and Absolute Value Inequalities (LO1) (LO3) • HW 3.1 Functions and Function Notation (LO3)(LO4) <p>Test from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • Test 1: Chapter 2 Equations and Inequalities (LO1)(LO2)(LO3)(LO4)
Week Three: Domain and Range (LO1, 3, 4, 5, 6, 7)	
Learning Activities and Materials	Assessments
<p>Read:</p> <ul style="list-style-type: none"> • 3.2 Domain and Range (Scroll pages – approx. 33 pages) (LO3)(LO4) • 3.3 Rates of Change and Behavior of Graphs (Scroll pages – approx. 19 pages) (LO4) • 3.4 Composition of Functions (Scroll pages – approx. 16 pages) (LO3)(LO6)(LO7) 	<p>Discussion Board:</p> <p>Transformations Discussion Forum (LO3)(LO4)(LO5):</p> <p>This week for your original post you will create a Quadratic function. If $f(x)=x^2$, you will create $g(x)=a(x-h)^2+k$, where you will choose values for a, h, and k. They can be any number positive or</p>

<ul style="list-style-type: none"> • 3.5 Transformations of Functions (Scroll pages – approx. 35 pages) (LO4)(LO5) • 3.6 Absolute Value Functions (Scroll pages – approx. 9 pages) (LO1)(LO4) <p>Watch:</p> <ul style="list-style-type: none"> • Domain and Range of Square Root Functions (5:25) (LO3) • Determining Domain and Range (10:19) (LO3) • Find Domain and Range Given the Graph (3:04) (LO3) • Find Domain and Range Given Points on a Coordinate Plane (2:57) (LO3) • Average Rate of Change (8:28) (LO4) • Composite Functions (8:55) (LO7) • Composite Functions Using Graphs (4:49) (LO7) • Decompose Functions (5:58) (LO7) • Composite Function Values (3:23) (LO7) • Function Transformations (8:19) (LO5) <p>Graphing Absolute Value Functions (5:33) (LO4)</p>	<p>negative.</p> <p>For your replies to two peers, you are going to follow one of the prompts, like you did last week. Remember if there are no replies, start with Prompt 1. If someone has done prompt 1, do prompt 2 and so on.</p> <p>Prompt 1: Look at the quadratic function your peer has posted. What transformations would take place in changing the graph from $f(x)=x^2$ to the function they created $g(x)$?</p> <p>Prompt 2: Graph the function your peer has chosen and compare it to $f(x)=x^2$. Does it match with what Prompt 1 said would happen?</p> <p>Prompt 3: What is the domain and range of the function based on the graph from prompt 2? Make sure to write them in Interval Notation.</p> <p>Prompt 4: Are there any errors in any of the prompts? If so, please state them. If not, choose a different discussion post and prompt.</p> <p>Homework from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • HW 3.2 Domain and Range (LO3)(LO4) • HW 3.3 Rates of Change and Behaviors of Graphs (LO4) • HW 3.4 Composition of Functions (LO3)(LO6)(LO7) • HW 3.5 Transformations of Functions (LO4)(LO5) • HW 3.6 Absolute Value Functions (LO1)(LO4)
<p>Week Four: Functions (LO1, 3, 4, 6, 7, 8)</p>	

Learning Activities and Materials	Assessments
<p>Read:</p> <ul style="list-style-type: none"> • 3.7 Inverse Functions (Scroll pages – approx. 20 pages) (LO4)(LO8) • 4.1 Linear Functions (Scroll pages – approx. 50 pages) (LO4) • 4.2 Modeling with Linear Functions (Scroll pages – approx. 9 pages) (LO4) • 4.3 Fitting Linear Models to Data (Scroll pages – approx. 11 pages) (LO4) <p>Watch:</p> <ul style="list-style-type: none"> • Inverse Functions (9:40) (LO8) • One to One Functions (5:45) (LO8) • Inverse Function Values Using Graph (4:23) (LO4)(LO8) • Linear Functions (10:38) (LO4) • Finding Input of Function from the Output and Graph (1:59) (LO4) • Interpreting a Linear Function (2:44) (LO4) • Introduction to Regression Analysis (7:50) (LO4) • Linear Regression Example (10:09) (LO4) <p>Review</p> <ul style="list-style-type: none"> • Absolute Value in Algebra (Scroll pages – approx. 10 pages) (LO1)(LO3) • Composition of Functions (Scroll pages – approx. 8 pages) (LO7) <p>Operations with Functions (Scroll pages – approx. 9 pages) (LO6)</p>	<p>Discussion Board:</p> <p>Functions Discussion Forum (LO4)(LO8):</p> <p>This week for your original post you are going to choose a function from the list below and find the inverse. You need to write out your work legibly or type it and upload it as a discussion board.</p> <p>Make sure to write which function you are using in the title of your post and to not use one that has already been posted. Every function listed has an inverse.</p> <p>For your replies to two different peers, you are going to follow one of the prompts, like you did last week. Remember if there are no replies, start with Prompt 1. If someone has done prompt 1, do prompt 2 and so on.</p> <p>Prompt 1: Find $f(f^{-1}(x))$ based on their answer. Show your work. Does it make sense?</p> <p>Prompt 2: Find $f^{-1}(f(x))$ based on their answer. Show your work. Does it make sense?</p> <p>Prompt 3: What is the domain and range of the original function $f(x)$? What is the domain and range of the inverse function $f^{-1}(x)$? Write your answers in Interval Notation.</p> <p>Homework from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • HW 3.7 Inverse Functions (LO4)(LO8) • HW 4.1 Linear Functions (LO4)

	<ul style="list-style-type: none"> • HW 4.2 Modeling with Linear Functions (LO4) • HW 4.3 Fitting Linear Models to Data (LO4) <p>Test from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • Test 2: Chapters 3 and 4 Functions with Linear Functions (LO1)(LO3)(LO4)(LO6)(LO7)(LO8)
Week Five: Polynomials (LO1, 2, 4)	
Learning Activities and Materials	Assessments
<p>Read:</p> <ul style="list-style-type: none"> • 5.1 Quadratic Functions (Scroll pages – approx. 21 pages) (LO1)(LO4) • 5.2 Power Functions and Polynomial Functions (Scroll pages – approx. 27 pages) (LO4) • 5.3 Graphs of Polynomial Functions (Scroll pages – approx. 26 pages) (LO4) • 5.4 Dividing Polynomials (Scroll Pages – approx. 11 pages) (LO1) • 5.5 Zeros of Polynomial Functions (Scroll pages – approx. 16 pages) (LO1)(LO2) <p>Watch:</p> <ul style="list-style-type: none"> • Quadratic Functions (9:14) (LO1)(LO4) • Quadratic Functions in Standard Form (9:00) (LO1)(LO4) • Characteristics of Quadratic Function (5:03) (LO4) • Find Key Information about a Given Polynomial Function (2:25) (LO4) • End Behavior of a Polynomial Function (5:45) (LO4) • Turning Points and x-intercepts of Polynomial Functions (5:31) (LO4) • Least Possible Degree of a Polynomial Function (1:52) (LO4) • Real Zeros, Factors, and Graphs of Polynomial Functions (10:02) (LO1)(LO4) 	<p>Discussion Board:</p> <p>Quadratic Functions Discussion Forum (LO1)(LO4):</p> <p>This week you are going to create a quadratic function in the form of $f(x)=ax^2+bx+c$. Choose any values for a, b, and c, where a does not equal zero.</p> <p>For your replies to two different peers, you are going to follow one of the prompts, like you did last week. Remember if there are no replies, start with Prompt 1. If someone has done prompt 1, do prompt 2 and so on.</p> <p>Prompt 1: Write the quadratic function in standard form. Show your work.</p> <p>Prompt 2: What is the vertex of this quadratic function? How do you know?</p> <p>Prompt 3: Does this quadratic function have a minimum or a maximum? How do you know? (By graphing is not a good answer.)</p> <p>Prompt 4: Use the answers in Prompt 2 and 3 to sketch a</p>

<ul style="list-style-type: none"> • Dividing a Polynomial by a Binomial Using Synthetic Division (3:16) (LO1) <p>Find the Zeros of a Polynomial Function (7:53) (LO1)(LO4)</p>	<p>graph of the quadratic function. Upload it here and make sure you have clearly marked the vertex.</p> <p>Homework from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • HW 5.1 Quadratic Functions (LO1)(LO4) • HW 5.2 Power Functions and Polynomial Functions (LO4) • HW 5.3 Graphs of Polynomial Functions (LO4) • HW 5.4 Dividing Polynomials (LO1) • HW 5.5 Zeros of Polynomial Functions (LO1)(LO2)
Week Six: Rational Functions (LO1, 2, 3, 4, 5, 6, 7, 8)	
Learning Activities and Materials	Assessments
<p>Read:</p> <ul style="list-style-type: none"> • 5.6 Rational Functions (Scroll pages – approx. 30 pages) (LO1)(LO3)(LO4) • 5.7 Inverses and Radical Functions (Scroll pages – approx. 16 pages) (LO1)(LO3)(LO7)(LO8) • 6.1 Exponential Functions (Scroll pages – approx. 24 pages) (LO1) • 6.2 Graphs of Exponential Functions (Scroll pages – approx. 17 pages) (LO3)(LO4) <p>Watch:</p> <ul style="list-style-type: none"> • Graphing Rational Functions (4:56) (LO4) • Find the Equation of a Rational Function (4:08) (LO4) • Determining Vertical and Horizontal Asymptotes (11:29) (LO4) • Find the Intercepts, Asymptotes, and Hole of a Rational Function (5:12) (LO4) • Find the Inverse of a Square Root Function (5:55) (LO1)(LO3)(LO8) • Find the Inverse of a Rational Function (3:43) (LO8) • Find the Inverse of a Rational Function and an Inverse Function Value (3:39) (LO8) 	<p>Discussion Board:</p> <p>Finding the Zeros of a Polynomial Function Discussion Forum (LO1)(LO2):</p> <p>This week you are going to choose a polynomial expression from the list below. Make sure to write which function you are using in the title of your post and to not use one that has already been posted</p> <p>Use the factor theorem to find the zeros of the polynomial expression. Remember to show your work and either write legibly or type it out and upload it here.</p> <p>For your replies to two different peers, you are going to follow one of the prompts, like you did last week. Remember if there are no replies, start with Prompt 1. If someone has done prompt 1, do prompt 2 and so on.</p> <p>Prompt 1: What are the multiplicities of the zeros your</p>

<ul style="list-style-type: none"> • Inverse Functions (9:40) (LO8) • Exponential Growth Function (7:45) (LO1) • Compound Interest (7:11) (LO1) • Graph Exponential Functions (9:18) (LO4) <p>Review:</p> <ul style="list-style-type: none"> • Function Transformations (Scroll pages – approx. 11 pages) (LO5) <p>Finding the Real and Complex Zeros from Factoring (4:07) (LO1)(LO2)</p>	<p>peer wrote?</p> <p>Prompt 2: What do those multiplicities mean? What will happen at the x-axis for each zero?</p> <p>Prompt 3: Using the answers from the original zeros, prompt 1 and prompt 2, draw a graph and upload it here. Make sure to label the zeros.</p> <p>Homework from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • HW 5.6 Rational Functions (LO1)(LO3)(LO4) • HW 5.7 Inverses and Radical Functions (LO1)(LO3)(LO7)(LO8) • HW 6.1 Exponential Functions (LO1) • HW 6.2 Graphs of Exponential Functions (LO3)(LO4) <p>Test from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • Test 3: Chapter 5 Polynomial and Rational Functions (LO1)(LO2)(LO3)(LO4)(LO5)(LO7)(LO8)
Week Seven: Logarithmic Functions (LO1, 3, 4)	
Learning Activities and Materials	Assessments
<p>Read:</p> <ul style="list-style-type: none"> • 6.3 Logarithmic Functions (Scroll pages – approx. 13 pages) (LO1) • 6.4 Graphs of Logarithmic Functions (Scroll pages – approx. 28 pages) (LO3)(LO4) • 6.5 Logarithmic Properties (Scroll pages – approx. 19 pages) (LO1) • 6.6 Exponential and Logarithmic Equations (Scroll pages – approx. 18 pages) (LO1) • 6.7 Exponential and Logarithmic Models (Scroll pages – approx. 20 pages) (LO1)(LO4) 	<p>Discussion Board:</p> <p>Exponential and Logarithmic Functions Discussion Forum (LO1):</p> <p>This week you are going to choose an exponential function from the list below. Make sure to write which function you are using in the title of your post and to not use one that has already been posted</p> <p>For your post, you will write a function that results from this transformation: shift $f(x)$ 2 units</p>

Watch:

- [Introduction to Logarithms](#) (7:42) **(LO1)**
- [Graph an Exponential Function and a Logarithmic Function](#) (6:01) **(LO4)**
- [Find the Domain of Logarithmic Functions](#) (4:36) **(LO3)**
- [The Properties of Logarithms](#) (8:36) **(LO1)**
- [Expand Logarithmic Expressions](#) (3:55) **(LO1)**
- [Solving Logarithmic Equations](#) (7:17) **(LO1)**
- [Solving Exponential Equations with Logarithms](#) (5:18) **(LO1)**

left.

Then you will choose any transformation, except shifting left and right and ask your peers to write a function that results from a given transformation.

For example. If the function was $f(x)=4^x$. My post would have $4^{(x+2)}$. Then I would ask my peers to write a function that results from the transformation of shifting 4 units upward.

For your replies to two different peers, you are going to follow one of the prompts, like you did last week.

Remember if there are no replies, start with Prompt 1. If someone has done prompt 1, do prompt 2 and so on.

Prompt 1: Write the given transformation asked for by your peer. What will the intercepts be?

Prompt 2: Graph the transformation from prompt 1 and upload it here.

Homework from MyOpenMath integrated into Moodle:

- HW 6.3 Logarithmic Functions **(LO1)**
- HW 6.4 Graphs of Logarithmic Functions **(LO3)(LO4)**
- HW 6.5 Logarithmic Properties **(LO1)**
- HW 6.6 Exponential and Logarithmic Equations **(LO1)**
- HW 6.7 Exponential and Logarithmic Models **(LO1)(LO4)**

	Test from MyOpenMath integrated into Moodle: <ul style="list-style-type: none"> Test 4: Chapter 6 Exponential and Logarithmic Functions (LO1)(LO3)(LO4)
Week Eight: Linear Equations (LO1-9)	
Learning Activities and Materials	Assessments
<p>Read:</p> <ul style="list-style-type: none"> 7.1 Systems of Linear Equations: Two Variables (Scroll pages – approx. 20 pages) (LO9) 7.3 Systems of Nonlinear Equations and Inequalities: Two Variables (Scroll pages – approx. 12 pages) (LO9) <p>Watch:</p> <ul style="list-style-type: none"> Solving Systems of Equations Using Substitution (9:43) (LO9) Solving Systems of Equations Using Elimination (7:31) (LO9) Applications of Systems of Equations (9:29) (LO9) Solve a System of Nonlinear Equations Using Substitution (4:31) (LO9) Solve a System of Nonlinear Equations Using Elimination (6:50) (LO9) <p>Review:</p> <ul style="list-style-type: none"> Chapter 2 Key Concepts (Scroll pages – approx. 4 pages) (LO1)(LO2)(LO3)(LO4) Chapter 3 Key Concepts (Scroll pages – approx. 4 pages) (LO1)(LO3)(LO4)(LO5)(LO6)(LO7)(LO8) Chapter 4 Key Concepts (Scroll pages – approx. 2 pages) (LO4) Chapter 5 Key Concepts (Scroll pages – approx. 4 pages) (LO1)(LO2)(LO3)(LO4)(LO7)(LO8) Chapter 6 Key Concepts (Scroll pages – approx. 5 pages) (LO1)(LO3)(LO4) 	<p>Discussion Board:</p> <p>Looking Back Discussion Forum (LO1)(LO2)(LO3)(LO4)(LO5)(LO6)(LO7)(LO8)(LO9):</p> <p>Create a meme that relates to this class. Some examples are: something you've learned, are currently or previously struggled with, or something you experienced. Get creative.</p> <p>In my discussion board starred below, you can see some examples of things that I've experienced in my own classes.</p> <p>In your responses to two peers, here are some things you could address. You don't have to address them all, one is fine. (Please be mindful not to reiterate what somebody else has already said.)</p> <ol style="list-style-type: none"> 1. Explain what the meme is saying. 2. Talk about a time that you've experienced a similar issue with a different part of the class. 3. Ask them a question about their meme. For example, if they wrote about struggling with the quotient rule, ask them how they overcame it. What resources did they use to do that? 4. If they've said they're still struggling with something, offer them a resource.

<ul style="list-style-type: none"> • Chapter 7 Key Concepts (Scroll pages – approx. 5 pages) (LO9) 	<p>5. If you have another meaningful way to respond, do that. These are just ideas.</p> <p>You can use any meme format that fits, remember to be professional, this is still a classroom. Below are blank copies of the ones that I used in case those would work best for you. Here is a resource that will help you through this if you've never made a meme before. You can also use an editing platform like Canva (free resource) to help you create your meme.</p> <p>Self-Reflection Discussion Forum (LO1)(LO2)(LO3)(LO4)(LO5)(LO6)(LO7)(LO8)(LO9):</p> <p>In your original post, talk about which topic was the most challenging for you and how you overcame that topic. Then talk about which topic you enjoyed the most and why.</p> <p>In your replies to your peers, reflect on what they were challenged with and what they enjoyed. Is that similar to your experience? If you were challenged by the same topic, what helped you? Do you think about any of the topics differently now that you've read someone else's perspective?</p> <p>Homework from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none"> • HW 7.1 Systems of Linear Equations: Two Variables (LO9) • HW 7.3 Systems of Nonlinear Equations and Inequalities: Two Variables (LO9)
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	<ul style="list-style-type: none">• HW Practice for Final Exam (LO1)(LO2)(LO3)(LO4) (LO5)(LO6)(LO7)(LO8)(LO9) <p>Test from MyOpenMath integrated into Moodle:</p> <ul style="list-style-type: none">• Final Exam (LO1)(LO2)(LO3)(LO4) (LO5)(LO6)(LO7)(LO8)(LO9)
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