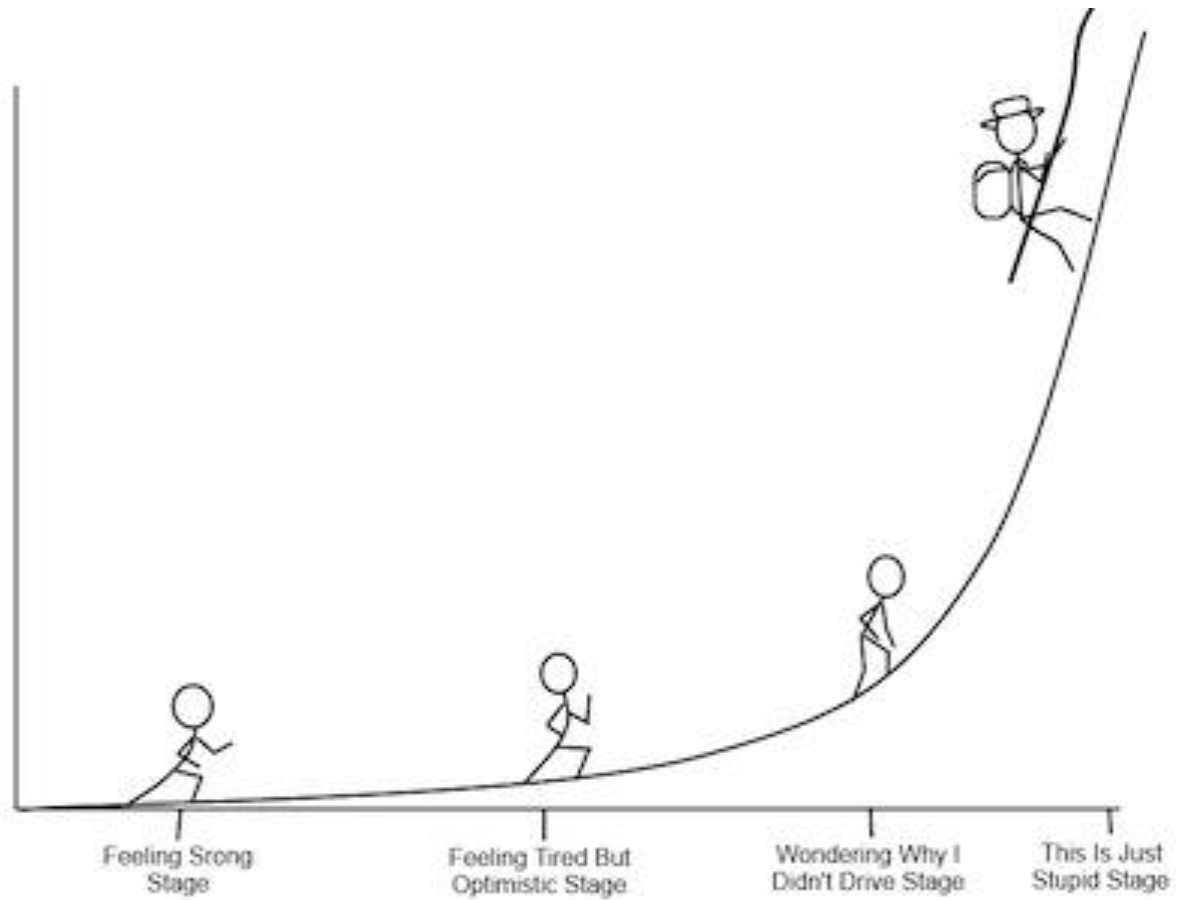


# Algebra 1

## Quarter Three



**"Algebra is the metaphysics of arithmetic" –John Ray**

## Overview

**Lessons** will be given in class. You will have multiple mini lessons throughout the week. If you are struggling with a concept, it is your responsibility to review the lessons and ask questions. I will answer any questions you have during the lesson but after that we will follow the “three before me” principle. You must ask three of your peers before you ask me for help.

**Math Journal:** I encourage use of your Statistics journal during lessons and work time. I advise you to use your journal to take notes during lessons and to work on assignments. Make sure it is neat and organized. Any and all important information from the lessons should be kept in this journal. You will be able to use your journals for formative assessments (quizzes).

## General Guidelines:

**Problem Sets** – 40% of your grade is based on completing each homework assignment.

**Homework Assignments Are Recommended Problems For Learning (and are required to pass this class!!).** It is recommended that you do the assignments or similar math problems in order for you to understand and retain the concepts. Use the work period to ask for help from your peers and teacher. **You will submit pictures of your assignments through Google Classroom by Sunday night (11:59pm) each week.**

**Quizzes/Assessments** – Quizzes/Assessments make up 30% of your grade and you must complete each quiz/assessment prior or on the date it is scheduled. **Remember: you can always use your notebook on quizzes and exams.** You must make at least 70% to “pass” the quiz/assessment. If you do not pass a quiz, you may retest using a similar exam during my tutoring hours. You may also correct quizzes for half the remaining credit.

**Final Assessment** – The final will make up 30% of your grade. You will not be able to make up the final exam. That is why it is important that you record the notes from the lessons and you do the suggested homework assignments. Practice the concepts in order to master them. **Your final project is also a part of your final assessment grade.**

## Lessons

### Big Ideas

- 1) Solving and graphing linear inequalities
- 2) Solving and graphing systems of equations and inequalities
- 3) Evaluating exponents and learning their properties
- 4) Interpreting exponential functions
- 5) Modeling exponential growth and decay

**Vocabulary**

- 1) Inequality
- 2) Absolute Value
- 3) System of Linear Equations
- 4) System of Linear Inequalities
- 5) Exponential
- 6) Scientific Notation

**Individual work****Guiding question 6:**

**How do you utilize inequalities in order to figure out a range of potential options? How do we mathematically interpret distances?**

**1) 6.1 Solving Inequalities Using Addition and Subtraction:**

\_\_\_\_\_ p.359 #'s 1 through 37 (odds)

**2) 6.2 Solve Inequalities Using Multiplication and Division:**

\_\_\_\_\_ p.366 #'s 1 through 39 (odds)

**3) 6.3 Solve Multi-Step Inequalities:**

\_\_\_\_\_ p.372 #'s 1 through 39 (odds)

**4) 6.4 Solve Compound Inequalities**

\_\_\_\_\_ p.384 #'s 1 through 41 (odds)

**\_\_\_\_\_ QUIZ FOR LESSONS 6.1 - 6.3 (February 10<sup>th</sup>)****5) 6.5 Solve Absolute Value Equations:**

\_\_\_\_\_ p.393 #'s 1 through 47 (odds)

**6) 6.6 Solve Absolute Value Inequalities**

\_\_\_\_\_ p.401 #'s 3 through 27 (odds)

\_\_\_\_\_ p.403 #'s 43-53 (odds)

**7) 6.7 Graph Linear Inequalities in Two Variables:**

\_\_\_\_\_ p.409 #'s 3 through 35 (odds)

**Assessment: Chapter 6 (February 24<sup>th</sup>)**

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**Guiding question 7:**

**How do you model multiple equations at the same time? Are there any situations where you will need to satisfy multiple models at once?**

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**8) 7.1 Solve Linear Systems by Graphing:**

\_\_\_\_\_ p.430 #'s 3 through 25 (odds)

\_\_\_\_\_ p.433 #'s 37 through 47 (odds)

**9) 7.2 Solve Linear Systems by Substitution:**

\_\_\_\_\_ p.439 #'s 3 through 17 (odds)

\_\_\_\_\_ p.441 #'s 39 through 49 (odds)

**10) 7.3 Solve Linear Systems by Adding or Subtracting:**

\_\_\_\_\_ p.447 #'s 3 through 27 (odds)

\_\_\_\_\_ p.450 #'s 47 through 55 (odds)

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**\_\_\_\_\_ QUIZ FOR LESSONS 7.1 - 7.3 (March 10<sup>th</sup>)****11) 7.4 Solve Linear Systems by Multiplying First:**

\_\_\_\_\_ p.454 #'s 1 through 17 (odds)

\_\_\_\_\_ p.456 #'s 37, 39, 40

\_\_\_\_\_ p.457 #'s 45 through 57 (odds)

**12) 7.5 Solve Special Types of Linear Systems:**

\_\_\_\_\_ p.462 #'s 1 through 23 (odds)

**13) 7.6 Solve Systems of Linear Equations:**

\_\_\_\_\_ p.469 #'s 3 through 31 (odds)

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**Assessment: Chapter 7 (March 20<sup>th</sup>)**

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**Guiding question 8:**

**What is an exponential function? What are some useful properties? How do we use these properties to model real world scenarios?**

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**14) 8.1 Apply Exponent Properties Involving Products:**

\_\_\_\_\_ p.492 #'s 3 through 37 (odds)

\_\_\_\_\_ p.494 mixed review #'s 61-73 (odds)

**15) 8.2 Apply Exponent Properties Involving Quotients:**

\_\_\_\_\_ p. 498 #'s 3 through 31 (odds)

\_\_\_\_\_ p.501 mixed review #'s 55 through 65 (odds)

**16) 8.3 Define and Use Zero and Negative Exponents:**

\_\_\_\_\_ p.506 #'s 3 through 43 (odds)

\_\_\_\_\_ p.508 mixed review #'s 59 through 67 (odds)

**17) 8.4 Use Scientific Notation:**

\_\_\_\_\_ p.515 #'s 3 through 27 (odds)

**FINAL ASSESSMENT (Week of April 3<sup>rd</sup>):**

\_\_\_\_\_ Chapter 6, 7 and 8 Final

\_\_\_\_\_ Final Project