

# Easy Peasy All-in-One High School

An extension of the Easy Peasy All-in-One Homeschool

"Created 7/13/2015

\*Please note that this is a copy and therefore has not been updated since its creation date. If you find a link issue or typo here, please check the website source before bringing it to our attention. Thank you.\*"

## Algebra 2

Note: I just updated all of the grading sheets 5/23. The first quarter grading sheet was off by one number. The total possible from the first page is 208 not 209. Please note that change on your total. All of the Excel sheets have been changed as well to make sure they include all of your grades.

**Note:** CK12 is offering free tutoring done by college students. We are starting with an EP group with them where you can post your questions *any time* Here's the info: You will need to create a free CK12 account then join the Easy Peasy Tutoring Group [here](#). Click on Q&A to ask a question. When you ask, include the question you are having trouble with. You should get a response within 24 hours. (Remember in an online forum, never give out personal information.)

**Credits:** 1

**Recommended:** 10th, 11th

**Prerequisite:** Algebra 1, Geometry

**Test Prep:** [CLEP College Algebra](#), [CLEP College Mathematics](#)

**Course Description:** This course covers advanced algebra topics including: linear equations, matrices, absolute value, inequalities, factoring, parabolas, quadratics, complex numbers, exponents, polynomials, functions, composite functions, inverse functions, rational expressions, conic sections, probability mechanics, algebraic and geometric sequences and series and basic trigonometric functions. Most topics include solving and graphing equations. Students will learn by using online texts and videos. Students will do daily problem solving including SAT prep questions. Grading will be based on quizzes, tests and a final exam.

This course comes from [Algebra 2 Online!](#) and [Intermediate Algebra](#); it also uses [Math is Fun](#), [Yay Math!](#) and Khan Academy.

**Notes:**

You will sometimes need [graph paper](#). I will not put this in later for you to print out. Print some out before you begin the course to have on hand.

You are allowed to use a [calculator](#) during this course. Do not use programs that solve the problems for you. There is no point to using those when you are just learning. You won't learn how to solve the problems if someone is doing it for you. The calculator is for calculations. You already are great at multiplying and dividing and don't need to spend time working out answers to those types of things. You can even use a calculator on tests. Cheating is a form of lying, and like lies, it eventually catches up to you.

Things that say "presentation" are Shockwave Flash files. You will need it installed/updated/enabled in order to view them. If you are using an iPad or other tablet, make sure you are using an app or browser that will allow you to view them. A few times Java is also used.

### **Day 1(\*)**

1. (\*)Print out your [grading sheet](#) or use the [Excel](#) version.
2. Complete the [warm up problems](#).
3. Record up to 3 points for at least three correct answers.
4. Review [order of operations](#) when evaluating expressions.
5. Click on the two video examples on [expressions, simplifying and evaluating](#). Pause the video and try the examples yourself. Then watch to check your answers.
6. Take the quiz on [expressions](#). These types of quizzes are really like your homework. If you need to go back and look at the lesson, it's okay to do that. It's not cheating.
7. Record your score out of 7.

### **Day 2**

1. Do the warm up problems.
2. Record up to 3 points for at least three correct answers.
3. Review the properties of numbers.
4. Watch the video on the types of numbers.
5. Here is a page reminder of rational and irrational numbers. Take the rational/irrational quiz and then one more.
6. Record your score out of 7. (Take a point off of 7 for each wrong answer.)

### Day 3

1. Do the warm up problems.
2. Record up to 3 points for at least three correct answers.
3. Read about the parts of the graph and answer questions one through five.
4. Record your score out of 5.
5. Review averages by reading the pages and take the quiz when you are done. (Remember, you can use a calculator.)
6. Record your score out of 10.

### Day 4

1. Do the warm up problems.
2. Record up to 3 points for at least three correct answers.
3. Play with the equation buster for review.
4. Try solving equations. Do the first seven.
5. Check your answers and go over the solutions to any you got wrong.
6. Now solve the equations.
7. Check your answers.
8. Record your score out of 5.

### Day 5

1. Do you remember that absolute value is always positive. Use the link for a quick review.
2. Watch the video and use the worksheet to take notes on absolute value equations.
3. Take the quiz. The access code for these is always right under the title. Read carefully and you'll see it.
4. Record your score out of 10.

### Day 6

1. Read about solving absolute value equations.
2. Read about graphing absolute value equations.
3. Play with the graph on the page and make observations. Type in  $\text{abs}(x)$  or some other function with absolute value. Change the values by using the sliders. How does the graph change? How does it stay the same?
4. Solve the absolute value equations.
5. Check your answers and review the solutions of any you got wrong.
6. Take the quiz on solving absolute value equations.
7. Record your score out of 5 (potential for extra credit).

### Day 7

1. Do the warm up problems on solving absolute value equations.
2. Record up to 3 points for at least three correct answers.
3. Read about solving inequalities and do the first five questions. If you get one wrong, do one more. :)
4. Go over the two examples of solving inequalities with and / or.

5. Take the quiz on solving inequalities. (Just a reminder that all of these types of “quizzes” you can use your notes while you take them. This is like homework or an in-class assignment.) In number three it uses the symbol for infinity, it looks like a sideways 8.
6. Record your score out of 5 (potential for extra credit). (My calculus teacher gave us an extra credit point every time we wrote a problem on the board. We could basically get one point every day.)

#### Day 8

1. Do the warm up problems on solving inequalities.
2. Record up to 3 points for at least three correct answers.
3. Read about solving absolute value inequalities.
4. Go over the example problem of solving absolute value inequalities.
5. Take the quiz.
6. Record your score out of 6 (potential for extra credit).

#### Day 9 Review — test questions will come from these exercises

1. Do these exercises for review.
  - one
  - two
  - three
  - four

#### Day 10(\*)

1. Continue some review.
  - one
  - two
2. (\*)Take the short test. When you take a test, you have to close your notebook and all of your tabs/windows on your computer.
3. Check your answers.
4. Record your score out of 14. (up to two points for each)
5. ALWAYS hold onto your written tests. You can use these for review later.

#### Day 11

1. Do the warm up problems on solving absolute value inequalities.
2. Record up to 3 points for at least three correct answers.
3. Go through the video presentation on relations and functions. (Remember that you can always pause a video to try a problem before it shows you the answer.)
4. Go through the video and try the examples to find the domain and range.
5. Read about functions and relations.
6. Try the example with using the vertical line test.
7. Try the example with finding the domain and range.
8. Use graphs to find the domain and range.
9. Record 5 points for completing #8 (first 4 correct or 5 correct in a row).

#### Day 12

1. Do the warm up problems on domain and range.
2. Record up to 3 points for at least three correct answers.
3. Read about linear equations (or the equation of a straight line). You don't need to use the links on the page.
4. Do questions one through five.
5. Record up to 5 points for your correct answers.

6. Play more with making a graph from an equation. Make the graphs of the example equations by clicking and dragging the points on the graph.
7. Record 5 points for making each of the five equations. Take off a point for any you couldn't make.
8. Go through this video presentation on linear equations.

#### Day 13\*

1. \*Print out this worksheet to use to take notes as you watch the video on slope.
2. Take the quiz. The access code is under the title.
3. Record your score out of 10.

#### Day 14

1. Watch the video presentation on linear functions.
2. Read about making a T chart.
3. Read through the lesson on slope and y-intercept in word problems.
4. Work through the examples.
5. Do the quiz on linear equations.
6. Record your score out of 5.

#### Day 15

1. Do the warm up problems on linear equations.
2. Record up to 3 points for at least three correct answers.
3. Review slope.
4. Read about the other form of writing the equation of a straight line, point-slope form.
5. Try the five questions.
6. Try the examples of writing equations in point-slope form.
7. Try this example as well.
8. Take the slope quiz.
9. Record your score out of 5 (potential for extra credit).

#### Day 16

1. Do the warm up problems on slope.
2. Record up to 3 points for at least three correct answers.
3. Take the linear equation test.
4. Record your score out of 7.
5. Do this lesson on finding parallel lines.
6. Do this lesson on finding perpendicular lines.
7. Do these examples of finding parallel and perpendicular lines.
8. Take the writing linear equations quiz.
9. Record your score out of 7 (potential for extra credit).

#### Day 17

1. A little review...
2. Do the presentation on functions (or read the topic text). Then do the practice and review.
3. Record your review score out of 6.

#### Day 18

1. Do the warm up, presentation or topic text, practice and review on evaluating functions. You shouldn't need the worked examples, but use them if you do.
2. Record your review score out of 2.

#### Day 19

1. Do the presentation or topic text, worked examples as necessary, practice and review on graphing types of functions. (You may have to think back to algebra 1 for some of this. Don't freak out about it! We're not recording grades today and on Day 18.)

#### Day 20

1. Do the presentation or topic text, worked examples as necessary, practice and review on finding domain and range.

#### Day 21

1. Do the warm up problems on writing linear equations.
2. Record up to 3 points for at least three correct answers.
3. Learn about scatter plots and answer the questions.

#### Day 22

1. Try the scatterplot questions.
2. Record up to 5 points for at least five correct answers.
3. Watch the video on graphs of absolute value functions.
4. Watch the example exercise.
5. Make the graphs at :45 and 1:36 and then watch further to check your answers.
6. Go through the example of graphing absolute value functions.
7. Get five absolute value graphs correct.
8. Record your score out of 5.

#### Day 23

1. Learn about the greatest integer function, step functions and floor and ceiling functions. How are they all related?
  - two minute video
  - four minute video
  - Read about floor and ceiling functions and answer the questions. These are types of step functions.
  - An identity function returns the value inputted, so if you put in 1 for x, y is 1. If you put in -5 for x, then y is -5.
  - The graph of an identity function looks like this.
  - A piecewise function has a graph that is broken in pieces. It looks like this.
  - A constant function returns the same number for y no matter what x you put in. What would its graph look like?
  - Identify the graphs.

#### Day 24

1. Learn about graphing inequalities.
2. Try the example of graphing linear inequalities.
3. Here are some more examples to try.
4. Take the linear inequalities quiz.
5. Record your score out of 4. (potential for extra credit)

#### Day 25 Review — test questions will come from these review problems

1. Do these problems for review.
  - one
  - two
  - three
  - four
  - five
2. Your test on Day 26 will only cover these items. A cumulative test will come later.

**Day 26(\*)**

1. Continue to review with these problems.
2. (\*) Take your test.
3. Check your answers.
4. ALWAYS hold onto your written quizzes. You can use these for review later.
5. Record your score out of 5.

**Day 27**

1. Do the warm up problems on graphing linear inequalities.
2. Record up to 3 points for at least three correct answers.
3. \*Print out the worksheet to take notes while you watch the video on solving systems of equations using graphing.

**Day 28**

1. Go through the video presentation on solving systems of equations graphically. Work through the examples.
2. Go through this lesson as well.
3. *If you want a more detailed lesson, here is another.*
4. Try this example of solving a system of equations graphically. Try it first.
5. Do the practice problems. Review your answers.
6. Take the quiz.
7. Record your score out of 3.

**Day 29\***

1. \*Print out the worksheet to take notes while you watch.
2. Watch the video on solving systems of equations using the elimination method.

**Day 30**

1. Do the warm up problems on graphing systems of equations.
2. Record up to 3 points for at least three correct answers.
3. Scroll down to the section on "Solving by Substitution." Read that section and work through the examples.
4. Here's another lesson on solving by substitution.
5. Write an algebraic expression to solve the pencil and jar puzzle.
6. When you have tried a solution, check your answer. 2 points for the correct answer for the first problem and 5 points for a correct answer for the second. (All extra credit points, record them out of 0.)

**Day 31**

1. Do two math problems for SAT practice. (you will need to create a free account)
2. Study this page on systems of equations. Stop when it gets to three variables. You don't need to learn that right now. Take notes on the vocabulary (ie. "consistent," "dependent," etc.)
3. Answer questions 1-8 at the bottom of the page.
4. Record your score out of 7. (potential for an extra credit point)
5. Watch this lesson on classifying systems of equations.
6. Do numbers two and three on the quiz.
7. Record your score out of 2.

**Day 32**

1. Do two math problems for SAT practice.
2. Do the warm up problems on solving systems of equations algebraically.
3. Record up to 3 points for at least three correct answers.
4. Watch this lesson on evaluating a determinant.

5. Go through this lesson on Determinants and Cramer's Rule.
6. Try the quiz on Cramer's Rule.
7. Record your score out of 4.

### Day 33

1. Let's do review games.
  - absolute value equations
  - solving equations
  - slope-intercept Click on "challenge."
  - write the line equation The directions will appear in the box. Press "Go" to continue on. There are 3 levels to play.

### Day 34

1. More review games!
  - Can you write a system of equations to figure these puzzles out?
  - linear equations
  - solving equations Click on "challenge."

### Day 35

1. Do two math problems for SAT practice.
2. Do the warm up problems on Cramer's Rule.
3. Record up to 3 points for at least three correct answers.
4. A little review of graphing inequalities and then we'll look at systems of inequalities.
5. Read about graphing inequalities.
6. Practice graphing and solving inequalities. (There's a video if you want extra help.)

### Day 36

1. Do two math problems for SAT practice.
2. Work through this example of solving systems of inequalities with graphs.
3. Try solving systems of inequalities with graphs. (There's a video if you want extra help.)
4. Try the quiz.
5. Record your score out of 3. (potential for extra credit)

### Day 37

1. Do two math problems for SAT practice.
2. Do the warm up problems on solving inequalities graphically.
3. Record up to 3 points for at least three correct answers.
4. Watch the video on absolute value inequalities.
5. Try these two problems. Pause the video, copy down the problem, solve it and then watch the solution.
  - one
  - two

### Day 38

1. Do two math problems for SAT practice.
2. Watch the video on graphing absolute value.
3. Watch the video on graphing absolute value equations.
4. Watch the video on graphing systems of inequalities.
5. Watch the video example of graphing systems of inequalities with no solution.
6. Do the practice on graphing systems of inequalities.
7. Record your score out of 13. (potential for extra credit)

### Day 39

1. Click on each type of transformation in the list (translation, reflections, dilation, rotation). Read the lesson and then try the practice examples. Use graph paper and then check your answers.

#### Day 40

1. Read this lesson on translations with matrices.
2. Try some example problems. Pause and try what you can before you view the solutions.

#### Day 41

1. Do two math problems for SAT practice.
2. I took a course in college that used linear programming. We solved systems of equations in order to figure out where companies should distribution centers, how many employees a company should have, etc. We wrote as many equations as we could to put in as much information into the decision as possible and solved. These are the **constraints**, the limitations our decision was bound by. (The company will only spend a certain maximum amount of money on each employee, or only wants so many trucks in operation, etc.) You'll be doing a smaller version of that today.
3. Go through these examples of linear programming.
4. Try this example problem in linear programming.
5. Take the quiz.
6. Record your score out of 5 (potential for extra credit).

#### Day 42

1. Do two math problems for SAT practice.
2. Do the warm up problems on linear programming.
3. Record up to 3 points for at least three correct answers.
4. Go through the example on this presentation of linear programming used to solve problems.
5. Go through this example as well. (At the end, the three dots in a triangle shape mean "therefore.")
6. Go through one more example problem.
7. Take the quiz.
8. Record the score out of 5.

#### Day 43\*

1. Do two math problems for SAT practice.
2. Do the warm up problems on linear programming problems.
3. Record up to 3 points for at least three correct answers.
4. \*Print out this worksheet to take notes as you watch the video below.
5. Watch the video lesson on solving systems of equations with three variables.

#### Day 44

1. Do two math problems for SAT practice.
2. Do the three video lesson examples on solving equations with three variables. Click on each one. They will open in new windows.
3. Scroll down the page and learn about solving systems of equations with three variables. Do questions 9 and 10 at the bottom of the page.
4. Do one of these problems (without looking at your notes).
5. Check your answers when you are done.

#### Day 45 Review — test questions will come from these problems

1. Use these problems to review for a test on Day 46.
  - one
  - two
  - three
  - four

- five
- six

#### Day 46(\*\*)

1. Do two math problems for SAT practice.
2. Continue your review by solving these linear programming word problems.
3. (\*)Take your test.
4. Check your answers.
5. Record your score out of 10. (up to two points for each problem)

#### Day 47\*

1. Do two math problems for SAT practice.
2. \*Print out this worksheet to take notes on as you watch the video below.
3. Watch this short video on matrices. (look familiar?)
4. Take the quiz on matrices.
5. Watch this presentation on identifying elements in a matrix.

#### Day 48

1. Do two math problems for SAT practice.
2. Find the determinant of the matrices.
3. Answer the questions at the bottom of the page.
4. Do page one of this worksheet packet on matrices. Write in definitions of the bold faced words. (Search online if necessary, but you can probably just use your brain! Write the dimensions of the example matrices and do the problem at the bottom of the page.
5. Hold onto your written work for your portfolio. Figure out your grade for the first quarter.

#### Day 49

1. (\*)Print out your grading sheet or use the Excel version.
2. Do two math problems for SAT practice.
3. Watch all of the tutoring sessions on adding matrices.
4. Practice adding and subtracting matrices.
5. Record your score out of 4.
6. Watch all the tutoring sessions on multiplying matrices.
7. Take the quiz.
8. Record your score out of 5 (potential for extra credit).

#### Day 50

1. Do two math problems for SAT practice.
2. Watch the lesson on solving an equation containing a matrix.
3. Do pages two and three of the matrix worksheet packet.
4. Check your answers.
5. Record your score out of 14.

#### Day 51

1. Do two math problems for SAT practice.
2. Do pages four and five of the matrix worksheet packet. Do the numbered problems (nine of them).
3. Check your answers.
4. Record your score out of 9.
5. Do you remember Cramer's Rule?

#### Day 52

1. Do two math problems for SAT practice.
2. Watch the video lesson on finding the inverse of a matrix.

3. Learn about the inverse and identity of a matrix.
4. Try the questions at the bottom of the page.

#### Day 53

1. Do two math problems for SAT practice.
2. Do pages six and seven of the matrix worksheet packet. Do the example problems (five of them).
3. Check your answers.
4. Record your score out of 5.
5. Take the quiz.
6. Record your score out of 5. (potential for extra credit)

#### Day 54

1. Do two math problems for SAT practice.
2. Take the quiz on determinants.
3. Record your score out of 4.
4. Take the quiz on the inverse of a matrix.
5. Record your score out of 5 (potential for extra credit).
6. Do one more quiz on the inverse.
7. Record your score out of 5.

#### Day 55

1. Do two math problems for SAT practice.
2. Watch the three video lesson examples of using matrices to solve systems of equations.
3. Take the quiz.
4. Record your score out of 4.
5. Solve the matrix equations.
6. Record your score out of 5.

#### Day 56

1. Do two math problems for SAT practice.
2. Review Cramer's Rule.
3. Apply Cramer's Rule to three equations.
4. Practice Cramer's Rule.
5. You can go through the example and then try to solve these three by three equations with Cramer's Rule. (I don't have answers for these. Give them a try. They are at the end of the lesson.)

#### Day 57

1. Do two math problems for SAT practice.
2. Learn about augmented matrices and using elementary row operations to find the inverse of a matrix.
3. Read and answer the questions at the bottom of the page.

#### Day 58

1. Do two math problems for SAT practice.
2. Do the warm up problems on solving matrix equations.
3. Record up to 3 points for at least three correct answers.
4. Watch the lesson on writing systems from augmented matrices. Try the examples.
5. Watch the lesson on using an augmented matrix.
6. Take the quiz on using augmented matrices.
7. Record your score out of 5.

#### Day 59

1. Do two math problems for SAT practice.

2. Learn about box and whisker plots.
3. Try the example and then watch the solution.
4. Answer the word problems. (If we can't use those, do three correct in a row of these problems.)

#### Day 60

1. Do two math problems for SAT practice.
2. Read the page on exponent properties.
3. Answer questions 1-10. Use the page as necessary to remind yourself of the rules.
4. Record your score out of 10. (potential for extra credit)
5. You can do any of the "hard" problems for extra credit points if you get them right.

#### Day 61

1. Do two math problems for SAT practice.
2. Read about simplifying expressions with exponents.
3. Answer the questions for practice.
4. Try this exponents quiz.
5. Record your score out of 10.

#### Day 62

1. Do two math problems for SAT practice.
2. Simplify the expressions.
3. Record your score out of 5.
4. Watch the lesson on classifying polynomials.
5. Watch the lesson on modeling data.
6. Read the lesson and look at the graphs, graphing exponential functions. What do you notice? (You don't need to copy down these problems.)
7. Draw the graph of  $(1/3)^{-x}$  to the  $-x$  power. (You can refer to the lesson as necessary?)
8. Check your answer.
9. Record up to 5 points for a correct graph.

#### Day 63

- Do two math problems for SAT practice.
- Read about polynomials.
- Answer the questions.
- Record your score out of 10.

#### Day 64

1. Do two math problems for SAT practice.
2. Read about adding and subtracting polynomials.
3. Answer the questions.
4. Record your score out of 10.
5. Simplify the expressions. Do numbers 1, 2, 4, and 5.
6. Record your score out of 4.

#### Day 65

1. Do two math problems for SAT practice.
2. Read about multiplying polynomials.
3. Answer the questions 1 through 10.
4. Add an extra credit point if you can get this one.
5. Record your score out of 10.
6. Take the polynomials quiz and record your score out of 5.

**Day 66**

1. Do two math problems for SAT practice.
2. Read about polynomial long multiplication.
3. Answer questions one through ten.
4. Record your score out of 10.

**Day 67\***

1. Do two math problems for SAT practice.
2. \*Print out this worksheet to take notes while you watch the video.
3. Watch the video on dividing polynomials with long division.
4. Do the first five problems on the quiz.
5. Record your score out of 5.

**Day 68**

1. Do two math problems for SAT practice.
2. Solve using long division.
3. Record your score out of 5.
4. Watch the five lessons on factoring trinomials. Remember to pause and try things first when you can.

**Day 69**

1. Do two math problems for SAT practice.
2. Factor these completely.
3. Record your score out of 5.
4. \*Print this worksheet to take notes as you watch the video.
5. Watch the video on synthetic division.

**Day 70**

1. Do the warm up, presentation, worked examples (as necessary) and practice on the introduction to rational expressions.
2. Record your score out of 5 for the practice.

**Day 71**

1. Do the review from the introduction.
2. Do the warm up, presentation, worked examples (as necessary) and practice on multiplying and dividing rational expressions.
3. Record your score out of 5 for the practice.

**Day 72**

1. Do the review from Day 71's topic.
2. Do the warm up, presentation, worked examples (as necessary) and practice on adding and subtracting rational expressions.
3. Record your score out of 5 for the practice.

**Day 73**

1. Do the review from Day 72's topic.
2. Do the warm up, presentation, worked examples (as necessary) and practice on complex rational expressions.
3. Record your score out of 5 for the practice.

**Day 74**

1. Do the review from Day 73's topic.
2. Do the warm up, presentation, worked examples (as necessary) and practice on solving rational equations and applications.
3. Record your score out of 5 for the practice.

**Day 75**

1. Do the review from Day 74's topic.
2. Do the warm up, presentation, worked examples (as necessary) and practice on rational formulas.
3. Record your score out of 5 for the practice.

**Day 76**

1. Do two math problems for SAT practice.
2. Do the review from Day 75's topic.
3. Do the tutoring session on profits and the rising cost of fuel.
4. Try the game.

**Day 77**

1. Read the lesson and answer the questions on rational expressions.
2. Record your score out of 8. (potential for extra credit)

**Day 78**

1. Read the page and answer the questions on using rational expressions.
2. Record your score out of 8. (potential for extra credit)

**Day 79**

1. Do the warm up, presentation, worked examples (as necessary) and practice on roots.
2. Record your score out of 5 for the practice.

**Day 80**

1. Do the review section from roots.
2. Do the warm up, presentation, worked examples (as necessary) and practice on multiplying and dividing radical expressions.
3. Record your score out of 5 for the practice.

**Day 81**

1. Do the review section from Day 80.
2. Do the warm up, presentation, worked examples (as necessary) and practice on adding and subtracting radicals.
3. Record your score out of 5 for the practice.

**Day 82**

1. Do the review section from Day 81.
2. Do the warm up, presentation, worked examples (as necessary) and practice on multiplying multiple term radicals.
3. Record your score out of 5 for the practice.

**Day 83**

1. Do the review section from Day 82.
2. Do the warm up, presentation, worked examples (as necessary) and practice on rationalizing denominators.
3. Record your score out of 5 for the practice.

**Day 84**

1. Do the review section from Day 83.
2. Do the warm up, presentation, worked examples (as necessary) and practice on solving radical equations.
3. Record your score out of 5 for the practice.

**Day 85**

1. Do the review section from Day 84.
2. Do the warm up, presentation, worked examples (as necessary) and practice on complex numbers.
3. Record your score out of 5 for the practice.

**Day 86**

1. Do the review section from Day 85.
2. Do the warm up, presentation, worked examples (as necessary) and practice on operations on complex numbers.
3. Record your score out of 5 for the practice.

#### **Day 87**

1. Do the review section from Day 86.
2. Do the warm up, presentation, worked examples (as necessary) and practice on operations on square roots and completing the square.
3. Record your score out of 5 for the practice.

#### **Day 88**

1. Do the review section from Day 87.
2. Do the warm up, presentation, worked examples (as necessary) and practice on operations on the quadratic formula.
3. Record your score out of 5 for the practice.

#### **Day 89**

1. Do two math problems for SAT practice.
2. Do the review section from Day 88.
3. Completing the tutoring session.
4. Play the game.

#### **Day 90**

1. Do two math problems for SAT practice.
2. Complete these exercises to review.
  - radicals
  - roots
  - roots quiz Record your score out of 5. (potential for an extra credit point)
  - radical expressions
  - radical expressions Record your score out of 10.
3. This is the end of the quarter. Figure your final grade. Make sure you save your written work. You can also print a screen shot of the sites we are using. How is your grade? What can you do to improve it?

#### **Day 91**

1. Do two math problems for SAT practice.
2. Complete these exercises to review.
  3.
    - rational exponents
    - rational exponents quiz Record your score out of 5. (potential for an extra credit point)
    - solving radical equations
    - quiz Record your score out of 5. (potential for an extra credit point)

#### **Day 92**

1. Do two math problems for SAT practice.
2. Complete these exercises to review.
  - complex numbers
  - quiz Record your score out of 12. (potential for an extra credit point)
  - simplifying complex number expressions
  - quiz Record your score out of 5.

#### **Day 93(\*)**

1. Do two math problems for SAT practice.
2. (\*) Take your test. Do not use notes.
3. Check your answers.
4. Record your score out of 5.
5. Try some review problems. Do a few from each set.
  1. one
  2. two
  - three
  - four
  - five
  - six

#### Day 94

1. Do two math problems for SAT practice.
2. Watch the video on graphing quadratic functions. Take notes.

#### Day 95

1. (\*) Print out your grading sheet or use the Excel version.
2. Do two math problems for SAT practice.
3. Do the two problems on this worksheet without using your notes.
4. Check your notes to see if you did it right. Correct any problems.
5. Take the quiz.
6. Record your score out of 10.

#### Day 96

1. Do two math problems for SAT practice.
2. Complete the lesson on Multiplying Binomials.
3. Complete practice problems to check your understanding. If you aren't getting this easily, then try some more by using the worksheet.
4. Complete the challenge question at the bottom of the page.

#### Day 97(\*)

1. Do two math problems for SAT practice.
2. (\*) Print out this worksheet to use to take notes while you watch the video.
3. Watch the video lesson solving quadratic functions.

#### Day 98

1. Do two math problems for SAT practice.
2. Complete the lesson on solving quadratic equations by factoring.
3. Make sure to complete the practice problems to check your understanding.

#### Day 99

1. Do two math problems for SAT practice.
2. Here's a review of solving quadratic equations by factoring.
3. Complete the lesson on solving quadratic equations using square roots.
4. Make sure you do practice problems to check your understanding.

#### Day 100

1. Do two math problems for SAT practice.
2. Complete the lesson on solving quadratic equations by completing the square.
3. Make sure you do practice problems to check your understanding.

#### Day 101

1. Do two math problems for SAT practice.
2. Complete the lesson on using the quadratic formula to solve quadratic equations.

3. Make sure you do some practice problems to check your understanding.

**Day 102**

1. Do two math problems for SAT practice.
2. Review solving quadratics with graphing and take the quiz.
3. Record your score out of 4.

**Day 103**

1. Do two math problems for SAT practice.
2. Review solving quadratics by factoring and take the quiz.
3. Record your score out of 7.

**Day 104**

1. Do two math problems for SAT practice.
2. Review about solving quadratics by completing the square and take the quiz.
3. Record your score out of 5.

**Day 105**

1. Do two math problems for SAT practice.
2. Review about solving quadratic equations.
3. Answer the questions.
4. Can you answer any of the hard ones? (Record up to five extra credit points for up to five correct answers out of the "hard" section.)

**Day 106**

1. Do two math problems for SAT practice.
2. Solve these quadratic word problems. Try them first and then look through the solutions. There are just the problems on the page. There are no extra questions at the end.

**Day 107**

1. Do two math problems for SAT practice.
2. Review solving quadratic equations.
3. Practice solving quadratic equations. You will do this some more on Day 103. (In practice mode you can see how to solve it line by line if necessary.)

**Day 108**

1. Do two math problems for SAT practice.
2. Practice solving quadratic equations and then take the quiz below.
3. Solve the following quadratic equations.
4. Record your score out of 7.

**Day 109\***

1. Do two math problems for SAT practice.
2. \*Print out this worksheet to take notes as you watch the video.
3. Watch the video on complex numbers.
4. Complete the quiz. The access code is under the title.
5. Record your score out of 10.

**Day 110**

1. Do two math problems for SAT practice.
2. Add, subtract, multiply and divide complex numbers. Use the practice problems.

**Day 111**

1. Do two math problems for SAT practice.
2. Take the quiz on complex numbers. Click on quiz.
3. Record your score out of 20.

**Day 112**

1. Do two math problems for SAT practice.
2. Go through this page on the relationship between the discriminant and the graph of the quadratic equation.
3. What can be observed about the solutions to a quadratic equation based on the discriminant? (3 answers)
4. Use the video lessons on the quadratic formula and the discriminant.
  - Solving quadratic equations using the quadratic formula
  - Using the discriminant to find the number of solutions and solve problems

**Day 113**

1. Do two math problems for SAT practice.
2. Use the video lesson on solving quadratic equations using the quadratic formula, complex solution.
3. Take the quiz.
4. Record your score out of 7.

**Day 114**

1. Do two math problems for SAT practice.
2. Do the warm up on the quadratic formula and discriminant.
3. Record up to three points for up to three correct answers.
4. Take the quiz on the sum and product of roots.
5. Record your score out of 5. (potential for an extra credit point)
6. Review solving by factoring.

**Day 115**

1. Do two math problems for SAT practice.
2. Do the warm up on the sum and product of roots.
3. Record up to three points for up to three correct answers.
4. Take the quiz on graphing parabolas.
5. Use the lessons if necessary.
6. Record your score out of 6.

**Day 116**

1. Do two math problems for SAT practice.
2. Read the lesson on graphing quadratic inequalities and try the practice problem.
3. Take the quiz on graphing quadratic inequalities.
4. Record your score out of 4.

**Day 117**

1. Do two math problems for SAT practice.
2. Use the following exercises to review for a quiz.
  - quadratic formula and discriminant
  - sum and product of roots
  - analyzing graphs of quadratics

**Day 118(\*)**

1. Do two math problems for SAT practice.
2. Continue your review with this exercise on graphing quadratic inequalities.
3. (\*)Take your quiz.
4. Check your answers.
5. Record your score out of 5.

**Day 119**

1. Do two math problems for SAT practice.
2. Watch the video lesson on the distance formula.
3. Do questions one through five at the bottom of the page. Use the lesson on the page as necessary.

#### Day 120

1. Do two math problems for SAT practice.
2. Read the lesson on the midpoint formula.
3. Find the midpoint. Answer questions one through seven.

#### Day 121

1. Do two math problems for SAT practice.
2. Use the distance and midpoint formulas to complete these exercises.
  - review
  - quiz
  - Record your score out of 5.

#### Day 122(\*)

1. (\*)Use this worksheet to take notes while you watch the video.
2. Watch the video lesson on conic sections with parabolas.
3. Try the quiz.

#### Day 123(\*)

1. (\*)Use this worksheet to take notes as you watch the video.
2. Watch the video lesson on conic sections and circles.
3. Read the lesson on the equation of a circle and answer the questions.

#### Day 124

1. You may use your notes for these.
2. Take quiz on parabolas. The access code is under the title.
3. Record your score out of 10.
4. Take the quiz on circles.
5. Record your score out of 10.

#### Day 125(\*)

1. (\*)Use this worksheet to take notes while you watch the video.
2. Watch the video lesson on conic sections with ellipses.
3. Try the quiz.

#### Day 126(\*)

1. Look at the images of the conic sections of a cone. You should see the changing image toward the top right of the screen.
2. (\*)Use this worksheet to take notes while you watch the video.
3. Watch the video lesson on conic sections with hyperbola.
4. Try the quiz.

#### Day 127

1. Take the quiz on ellipses. (You may use your notes for these.)
2. Record your score out of 10.
3. Take the quiz on hyperbola.
4. Record your score out of 10.

#### Day 128

1. Watch the video lesson on identifying conics.
2. Take the quiz.
3. Record your score out of 8. (potential for extra credit)

**Day 129**

1. Do two math problems for SAT practice.
2. Review solving systems of equations algebraically.
3. Solve the systems of equations.
4. Record your score out of 5. (potential for extra credit)
5. Review all of your written quizzes.

**Day 130**

1. Do two math problems for SAT practice.
2. We are going to be focusing again on functions. This is part review and then we will be looking at polynomial functions.
3. Review functions with this lesson.

**Day 131**

1. Do two math problems for SAT practice.
2. Do this lesson on operations on functions.
3. Answer the questions at the bottom of the page. The “hard” questions are extra credit.
4. Record your score out of 4.

**Day 132**

1. Do two math problems for SAT practice.
2. Use the lesson links to learn about the composition of functions.
3. Practice by completing all parts of numbers 1-3.
4. Score up to three points for problems two and three and up to four for the first problem.
5. Record your score out of 10.

**Day 133**

1. Do two math problems for SAT practice.
2. Complete the practice on the composition of functions, completing all parts from questions 4-10.
3. There are twenty questions.
4. Record your score out of 20.

**Day 134**

1. Do two math problems for SAT practice.
2. Read about the inverse of a function and answer questions 1-3. (Give yourself an extra credit point if you get number 6 correct.)
3. NOTE! Don't worry about the sine, cosine, tangent words. That's trigonometry.

**Day 135(\*)**

1. (\*)Use this worksheet to take notes as you watch the video.
2. Watch the video lesson on polynomial functions.
3. Take the quiz on polynomial functions. (Access code is under the title.)
4. Record your score out of 9. (potential for an extra credit point)
5. Figure out your third quarter grade. Hold onto your written work. You can use screen shots to show the websites you are using as well. How is your grade? How can you improve it?

**Day 136(\*)**

1. (\*)Print out your grading sheet or use the Excel version.
2. Do two math problems for SAT practice.
3. Watch the presentation on increasing and decreasing functions. Answer the practice questions before you look at the answers!
4. Learn about asymptotes.

5. Learn about vertical and horizontal asymptotes.
6. Use the presentation on asymptotes and try the practice problems (before you look at the answers!)

**Day 137**

1. Do two math problems for SAT practice.
2. Practice polynomial functions.
3. Practice asymptotes.
4. Take the quiz and record your score out of 5.

**Day 138**

1. Do two math problems for SAT practice.
2. Learn about the remainder and factor theorems and answer the first five questions.

**Day 139**

1. Do two math problems for SAT practice.
2. Learn about the fundamental theorem of algebra and answer the first five questions.

**Day 140**

1. Do two math problems for SAT practice.
2. Explore with the graph.
3. Practice.
4. Take the quiz.
5. Record your score out of 5. (potential for an extra credit point)

**Day 141**

1. Do two math problems for SAT practice.
2. Read through the presentation on roots and zeros of polynomials.
3. Go through the video lesson on the root theorem.

**Day 142**

1. Do two math problems for SAT practice.
2. Go through the video lesson on solving equations with the root theorem.
3. Go through the video lesson on the irrational root theorem.

**Day 143**

1. Do two math problems for SAT practice.
2. Go through the video lesson on finding the imaginary root.
3. Go through the video lesson on writing a polynomial from its roots.

**Day 144**

1. Do two math problems for SAT practice.
2. Practice.
3. Take the roots and zeros quiz.
4. Record your score out of 5. (potential for an extra credit point)

**Day 145**

1. Do two math problems for SAT practice.
2. Do you need a reminder from the presentation on roots and zeros.
3. Give it a try.
4. More practice

**Day 146**

1. Do two math problems for SAT practice.
2. Read about solving polynomials and answer the first five questions.

**Day 147**

1. Do two math problems for SAT practice.
2. Go through the example of solving polynomials by graphing.
3. Go through the example of solving polynomials by factoring and the quadratic formula.

**Day 148**

1. Do two math problems for SAT practice.
2. Go through the example of solving polynomials of higher degrees by factoring.
3. Practice.
4. Review.

**Day 149**

1. Do two math problems for SAT practice.
2. Take this review quiz and record your score out of 5.
3. Read the lesson on factorials.
4. Answer the first three questions at the bottom of the page.

**Day 150(\*)**

1. Do two math problems for SAT practice.
2. (\*)Print this worksheet to take notes on while you watch the video.
3. Watch the video on permutations.

**Day 151(\*)**

1. Do two math problems for SAT practice.
2. (\*)Use this worksheet to take notes on while you watch the video.
3. Watch the video on combinations.

**Day 152**

1. Do two math problems for SAT practice.
2. Read about the Binomial Theorem.
3. Answer the questions. Do numbers 1-7. You can do numbers 8-10 as extra credit problems.
4. Record your score out of 7. (potential for up to three points of extra credit)

**Day 153**

1. Read about Euler's number and answer the three questions on the bottom of the page.
2. Record your score out of 3.
3. Give yourself an extra credit point if you can say the first 16 digits of Euler's number.
4. Review permutations and answer the four exercises.
5. Record your score out of 4.
6. Review combinations and answer the three parts to Example 5.
7. Record your score out of 3.

**Day 154**

1. Read about sequences.
2. Read about finding a pattern in a sequence.
3. Answer questions 1-5 at the bottom of the page.
4. Record your score out of 5.

**Day 155**

1. Do two math problems for SAT practice.
2. Read about arithmetic sequences.
3. Answer the questions at the bottom of the page.
4. Record your score out of 9. (The tenth question is an extra credit question.)

**Day 156**

1. Do two math problems for SAT practice.
2. Read about geometric sequences.
3. Answer questions 1-7 at the bottom of the page.
4. Record your score out 7.

**Day 157**

1. Do two math problems for SAT practice.
2. Read about the Fibonacci Sequence.
3. Answer questions 1-5.
4. Go through the arithmetic series lesson. Once you put your mouse on the yellow blocks the answer will show.

**Day 158**

1. Watch the video tutorial on arithmetic sequences.
2. Take the quiz on arithmetic sequences.
3. Record your score out of 5. (potential for extra credit)
4. Watch the video tutorial on geometric sequences.
5. Take the quiz on geometric sequences.
6. Record your score out of 5. (potential for extra credit)

**Day 159**

1. Do these word problems involving arithmetic and geometric sequences and series.
2. You can refer to these review lessons if necessary.
3. Record your score out of 5. (potential for an extra credit point)
4. Practice with the binomial theorem.
5. Refer to the review lesson if necessary.
6. Record your score out of 5.

**Day 160**

1. Do the warm up, presentation (or text), worked examples (as necessary) and practice on exponential functions.
2. Record your score out of 5 for the practice.

**Day 161**

1. Do the review from exponential functions.
2. Do the warm up, presentation, worked examples (as necessary) and practice on logarithmic functions.
3. Record your score out of 5 for the practice.
4. Your final exam does not include logarithms.

**Day 162**

1. Do the review from logarithmic functions.
2. Do the warm up, presentation, worked examples (as necessary) and practice on properties of logarithmic functions.
3. Record your score out of 5 for the practice.

**Day 163**

1. Do the review from properties of logarithmic functions.
2. Do the warm up, presentation, worked examples (as necessary) and practice on natural and common logarithms.
3. Record your score out of 5 for the practice.

**Day 164**

1. Do the review from natural and common logarithms.
2. Do the warm up, presentation, worked examples (as necessary) and practice on solving exponential and logarithmic equations.
3. Record your score out of 5 for the practice.

**Day 165**

1. Do the review from solving exponential and logarithmic equations.

2. Do the warm up, presentation, worked examples (as necessary) and practice on mathematical modeling with logarithmic functions.
3. Record your score out of 5 for the practice.

#### Day 166

1. Do the review from mathematical modeling.
2. Use the tutoring session.

#### Day 167

1. Do the warm up, presentation, worked examples (as necessary) and practice on identifying the six trigonometric functions.
2. Record your score out of 5 for the practice.

#### Day 168

1. Do the review from identifying the trigonometric functions.
2. Do the warm up, presentation, worked examples (as necessary) and practice on right triangle trigonometry.
3. Record your score out of 5 for the practice.

#### Day 169

1. Do the review from right triangle trigonometry.
2. Do the warm up, presentation, worked examples (as necessary) and practice on unit circle trigonometry.
3. Record your score out of 5 for the practice.

#### Day 170

1. Do the review from unit circle trigonometry.
2. Do the warm up, presentation, worked examples (as necessary) and practice on degree and radian measure.
3. Record your score out of 5 for the practice.

#### Day 171

1. Do the review from degree and radian measure.
2. Do the warm up, presentation, worked examples (as necessary) and practice on graphing the sine and cosine functions.
3. Record your score out of 5 for the practice.

#### Day 172

1. Do the review from graphing the sine and cosine functions.
2. Do the warm up, presentation, worked examples (as necessary) and practice on amplitude and period.
3. Record your score out of 5 for the practice.

#### Day 173

1. Do the review from amplitude and period.
2. Use the tutoring session.
3. Logarithms are not on your final exam.

#### Day 174

1. One last topic. We're going to review our data analysis and look at couple new things related to it.
2. Review.
  - mean, median, mode (refresher?)
  - scatter plots (refresher?)
  - box and whiskers (refresher?)

#### Day 175

1. Read about standard deviation and variance and answer the questions.

#### Day 176

1. Read about z scores.

2. Read about [calculating z scores](#).
3. Watch the video on [finding z scores](#).
4. [Practice](#).

#### Day 177

1. Take the [quiz on standard deviation and z scores](#).
2. Record your score out of 30.
3. Use this test for [review](#). This is a good example of the types of problems that will be on your final.
4. Take note of what things you can't remember. You will have your final exam on Day 180.
5. In the test it says, "feasible region," which I didn't remember from the course (maybe you recognize it). It's not something new. Here's one explanation I found online. "Draw all of your lines. According to the inequality, shade above or below for every line. The feasible region, or solution region is a shared region that all of the lines have in common." The *apparent solution set* is just what appears to be the solution set.

#### Day 178 – 179

1. Study for your final exam on Day 180. Review topics that you jotted down yesterday as things you forgot. You can use this course to review, [Algebra 2 Online!](#).
2. You need to know what the graphs of absolute value equations and inequalities looks like as well as the graphs of different types of functions (or be able to figure out what they look like). Do you remember the types of conic sections? You need to know what arithmetic and geometric sequences are. Can you multiply matrices?
3. Relax when you take your exam. If things are worded a little differently than you are used to, don't flip out! Use your brain and use what you know to answer the question. You know this stuff. You can do it! (And I will give a little leeway in grading since you were not "taught to the test" as other students would have been.

#### Day 180

1. Take your [final](#).
2. Record your score out of 45. (potential for extra credit)

[Make A Donation](#)

#### Notes:

I'm not sure this course covers enough trigonometry for the [College Algebra CLEP](#) test. Trigonometry and Pre-Calculus is the next course in the math progression.

Here's a [CLEP College Mathematics](#) practice test.

#### I found Algebra 2 to be...

easy  just about right  hard

Vote [View ResultsPollDaddy.com](#)

#### About how much time I spent each day on Algebra 2

20 minutes or less  30 minutes  40 minutes  60 minutes or more

Vote [View ResultsPollDaddy.com](#)