

# ALGEBRA 1-2 (2017-18)

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**Welcome** to High School Algebra! You are about to begin a very important course for both high school and your future endeavors! At times, Algebra 1-2 will be geared to be more of a procedural-based course where there was often ONE distinct procedure that could be followed step-by-step. That's what I experienced many years ago; yet some of my own peers were not as successful if they didn't understand that "ONE way" of doing it! Further, I don't know if that style of instruction necessary prepared me for much. While it was easy for me at times, I felt more like a robot. I didn't have to really think. Later in my high school and college years as well as in life, I have spent time reflecting and "wish" I would have been pushed to simply think when I was growing up!

This year Mr. Ricenbaw has challenged our staff to reflect on the following: *I need to help prepare you for the world you live in, not the one I lived in during my past. The world we live in...together...is changing around us faster than ever before.* I need to move my instruction past the traditional drill and kill method. I need to move away from just showing you have to do each problem (and have you act like a robot and regurgitate what you supposedly *learned*). Thus I believe I need to instruct you using different methods. More students can find more success when Algebra 1-2 is presented with more than one way to look at (or solve) a problem. And more students can find success when students come up with ways to solve problems in collaborative teams. Thus, I do push multiple perspectives and collaboration. Further, there is such an abundance of online resources out there, you should have no excuse for finding a way that works for yourself! The key: you need to work hard. Be persistent. Ask for help. Celebrate success. Never stop trying. You get the picture. Simply be willing to think. I will use the phrase, "just think about it" often in this course. Listen for it!

**Push for rigor and your future.** Please know that I want your best. I also want to provide you a rigorous environment to see who is ready to push themselves even more! I will have my eye out for potential candidates to enroll in differentiated (accelerated) geometry next year! Many students have stepped up the two last years; I have been very pleased with their success and am fortunate to work again with many sophomores in Diff. Geometry again this year!

**It is my desire for you to be successful and I am here to help as well as promote peer collaboration.** Students who work hard on assignments and are engaged in class activities will succeed. You should not be afraid to make mistakes; it is a part of learning. If you find yourself struggling:

- Utilize peer support during class.
- Utilize peer support before school, whether in the commons or in pod 2000.
- Utilize peer support at home (call or facetime your fellow peers).
- Come in to my room before/after school. (Please know that I do have meetings and other commitments on some days.)
- Send me an email.

<b>Grading:</b>	100% - 94%	A
	93% - 86%	B
	85% - 78%	C
	77% - 70%	D
	69% - 0%	F

**Breakdown:** 80% Summative (*“of” learning...demonstrating what you have learned*)  
70%: tests, projects, and test corrections  
10%: semester final exam.  
20% Formative (*“for” learning...the process along the way*)  
approx. 10%: quizzes, projects, reflections on test corrections  
approx. 10%: homework

**Tests:** Tests are purposely designed to include some problems where you must apply what you have learned in class in a slightly different situation. In the future you will be asked to do similar problem solving when you take the ACT/SAT test, and this approach to instruction will help prepare you for future success. I will make sure you know in advance all the necessary elements/ideas, but you will need to determine an appropriate approach and apply it to solve problems. It is expected that all summative tests will be completed in one class period. I will use my professional judgment concerning providing individual students additional time to complete tests. Please know that I rarely grant additional time. Please be prepared and work efficiently during exams. You can meet with me individually to discuss your testing habits and options.

**Projects:** There will be a few chapter projects assigned in conjunction with chapter tests as well as in lieu of chapter tests. These projects, which you will complete outside of class, will afford you time to put together your best effort towards demonstrating an understanding of the concepts found in the chapter.

**Test Corrections:** You will have the opportunity to work through test corrections to earn as much as 50% of the missed points back on chapter test\*. (\*Note: to prevent “leapfrogging” and recognize those who earned an “A” on the original test, the highest possible grade a student, who did not earn an “A” on the original test, can earn is a 94% through the test correction process.) Those who earn an “A” or “B” on the test are not required to work through the test correction (yet they can). Those who earn below a “C” or lower on the test are strongly advised to work through the test correction process. The test correction process includes self-reflection, item analyses, correcting missed problems, explaining each error, and then offering even more reflection! Note: ALL students, regardless of the score earned, must complete the first test correction.

**Semester Final:** This exam will be a multiple choice.

**Quizzes:** There will be a mix of traditional in-class quizzes, pop quizzes, partner quizzes, homework quizzes, take-home quizzes, etc. to gauge your level of understanding throughout the quarter. There will be no retakes on quizzes.

**Homework:** You will have an assignment almost every night. Putting forth effort on each problem is more important than getting every problem correct. I, and your fellow peers, will help you with the ones you did not understand, but you need to try every problem so you know what your questions are. Homework will be graded a variety of ways, including turning it in, self-grading, peer grading, posting a solution/work on the board, or a mere completion grade. There will be times only a couple problems will be graded out of the entire assignment. Note: several assignments will include the answers in the back of the book. I am more concerned with the work and reasoning behind those answers. There may even be times where I post all of the answers on my website; I am looking for you to go deeper than the answers! Please know that merely copying the answers from the back of the book will not count as a grade. You need to use the homework as an opportunity to practice and figure out what you are “C” confident in, “S” shaky on, or need to “R” relearn.

**Late to Class?** You must either have a pass from a teacher or a tardy slip from the office. You are expected to arrive to class on time and begin the activity of the day AT the bell.

**Missing Class:** You are expected to attend all classes and the entirety of ALL classes. Recognizing that “life happens,” you should be aware that the class does move on even if you are not in class! When you are gone, (a) check my website to find out if there is an assignment posted and (b) contact a peer in the class to find out what you missed. Send me an email if you need clarification.

**Making up work:** If you are gone for a school-related activity (e.g., sports, clubs, meetings, etc.), you are expected to make up the work BEFORE you miss.

*Read the above sentence again.*

Further, you should make arrangements for making up a quiz or test BEFORE you miss.

*Read the above sentence again.*

There will be a deduction if you are not proactive regarding school-related absences. You cannot come into class following a school-related activity and ask me, “Did we do anything yesterday?” Also, if you missed a review day due to a school-related activity, you will still be expected to take the exam on the day you return.

If you are gone for an illness or parent excused reason, you will have TWO days to make up what missed (e.g., assignment, quiz, test). I will expect you to make up quizzes and tests before/after school or during lunch. You will need to initiate this conversation with me.

**Phones:** For non-college level courses, I do not allow phones to be out. Please turn off your phone and store it for the entire class period. If there is an activity where I want you to access your phone, I will instruct you to get your phone out. Should your phone become visible during class or be sitting on your lap or make sounds/vibrations, I will simply ask for it. You will be able to get your phone back at the end of the school day. Should this interruption repeat itself, administration would become the next step. Note: you cannot use your phone as your calculator. You need a separate calculator for class!

## Classroom Rules:

## S.O.A.R.

S – Safety (this is #1)

O – Opportunity (for you to learn and me to teach!)

A – Attendance (be here and on time)

R – Respect &

Responsibility (these two are big in life)

**Textbooks:** We will be using books that were new last year: *Big Ideas Math; Geometry: A Bridge to Success, 2015 edition*. To be good stewards, most of the assignments this year will come directly from the book. The book is also a great a resource for you to use as you learn geometry in addition to the overabundance of online support on the web (including my own website). My goal is to save the “paper” I plan use for in-class activities, tests, and test correction documents. Thus, I will not assign as many worksheets as I have in the past. SINCE the textbooks are new, I will also expect a good “**paper sack**” book cover to protect the book at all times! This is not an option. You will be responsible to keeping this book in great condition! Also know these books cost over \$100.00. Students are accountable for the replacement cost should it be lost or damaged! (Note: There may be times you have access to the online book as well.)

**Calculator:** While any basic scientific calculator that includes square root is sufficient for this course, a graphing calculator is preferred. Most students will likely be using a graphing calculator in future high school and (most definitely) in college math classes. Now is a good time to CONSIDER learning “how” to use it! The best on the market is in the family of the TI-84+ graphing calculators. (If you do purchase one, please bring me the ‘points’ on the package!) Note: I am NOT saying you have to go out and buy an expensive calculator. I just want to consider your future ☺ Also, the back-to-school time of the year is a GREAT time of the year to invest as the price is much cheaper (check out Walmart, etc.)

**Weekly Updates:** I like to periodically send out an overall update on how things are going in class as well as upcoming events (i.e., tests). For this first one, clearly I’m using “paper!” For future updates, I plan to send out an email update on most Fridays of the school year. (The email will be generated from powerschool; it automatically sends it to a parent email(s) that has/have been provided to District 145.)

## Course Requirements:

- \* Spiral notebook for notes (which can be used on some quizzes and tests.)
- \* Separate spiral notebook for homework assignments out of the book.
- \* Folder with your name on it (which tests and test corrections will go in.)
- \* 3-ring binder (for handouts, worksheet, quizzes, etc.)
- \* 3-hole punched, lined notebook paper in the binder.
- \* Scientific or graphing calculator (one in the family of the TI-84+)
- \* Plenty of pencils and erasers (as well as a few pens)

**Images for Problem Scoring in Dr. Hartman's Classroom:**

<b>Grading (on a 5 point scale)</b>			
Code*	Gradebook Value		Code Explanation (WHS Grading)
5	A (100%)	Mathematically Sound	College Preparation Proficiency
4	B (91%)	Minor Error(s)	College Preparation
3	C (81%)	Gray Area--some Major <i>minor</i> error(s) or some Minor <i>major</i> error(s)	Graduation (Basic) Proficiency
2	F (68%)	Major Error(s)	Just Below Basic Proficiency
1	F (50%)	Minimal Progress	Below Basic Proficiency
0	F (0%)	Nothing of Mathematical Value / Blank / Missing	

**Generic Rubric:** At each course level I teach and for each problem I assign, I seek to assess your content knowledge and problem solving as well as the justification of the solution provided by you. In assigning scores to your work, I hold this image for scores based on a your overall percentage of progress toward a correct answer with sufficient justification.

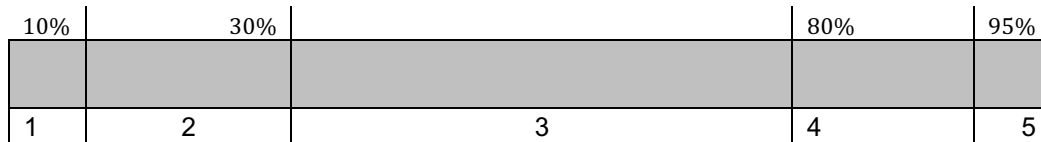


Image of Scores based on Percentage of Work's Correctness & Completeness

**Level 5 – A correct answer.** The solution is correct and the work shown is sufficient to demonstrate the answer is correct. The justification is satisfactory given your grade level (and course) and the explanation requested. Any errors or shortcomings in the correctness or completeness of the justification are so minor that in comparison with the quality of the solution, it is appropriate to ignore them.

**Level 4 – Errors are minor.** There is much of value in your solution and justification that merits the assessment that the solution is close to being correct and the justification appropriate. The work does include some minor errors (in the solution or the logic of the justification) or is incomplete in some way that results in the work falling short of being a completely correct answer.

**Level 3 – Major errors.** Some part of the solution or justification offers work that demonstrates that you have reasonable knowledge of the mathematics that needs to be used to solve the problem or to provide a justification, but at the same time the work (solution or justification) has major errors or (in the case of the justification) is missing.

**Level 2 – Minimal progress in solving the problem (and justifying the answer).** Answers (solution and justification) are incorrect but the work provided indicates that you have some understanding of the mathematics needed to solve the problem or explain your work. The work clearly falls short of offering evidence that “you have reasonable knowledge of the mathematics that needs to be used to solve the problem or provide a justification.”

**Level 1 – No mathematical work of value is included.** The work provided offers no evidence that you have an understanding of the mathematical work needed to solve the problem and explain a solution. Numbers may be written or a diagram drawn, but no important part of the work is correct.

**Level 0 – Problem was not attempted / is missing.**

Note: Your **justification** should be consistent with the wording in the problem.

- Show all work; (No explicit explanation is needed as your work should justify your answer.)
- Show how you found your answer. Be more explicit...use words, diagrams, etc.
- How do you know this (i.e., your answer) is correct? Without a doubt use words, etc.
- Explain your reasoning. Ditto.
- Justify your answer. Ditto but start to be more formal.
- Prove that your answer is correct. Be formal whether 2-column, paragraph, flowchart.

### Dr. Hartman's Final "6" Comments:

There are some very important things that I need to share with you regarding my life as well as your students' opportunity in my class.

1. My oldest child started 10th grade this fall at Waverly High School; my youngest started 7th grade at the middle school. While I am so excited for both of them, I am nervous like any parent. Lauren and Brianna mean the world to me! I want both to have a safe and meaningful experience each and every day. I expect nothing less than the best from their schools, the staff members that will work with them, and their fellow classmates. I know you love your children as much as I love mine. You expect the best for them at school at all times. I keep this in mind everyday.

2. WHS is still a bit new to me! I left my 20-year career in Lincoln Public Schools (including 13 years at Lincoln Southwest and a position as department chair) to invest into District 145 two years ago. While I have spent more time and energy investing into students the past two years than any previous year in my career, I loved every minute of it. It is a privilege for me to work with your student! Please continue to offer grace and patience as I continue to adjust!

3. The best way to reach me is via email: [David.Hartman@District145.org](mailto:David.Hartman@District145.org). Again, I try to send out updates, kind of like a class newsletter, every week or so. I will not, however, "push" grades. I am asking you that you periodically review your student's grade on PowerSchool.

4. Some of your children are involved in a lot! Balance seems to be a challenge (and goal) for most teenagers. From sports and clubs to work and family time, keeping a healthy balance is a necessity for all of us! Being a husband, father, teacher, department chair, student council co-sponsor, quiz bowl sponsor, and NWU statistics instructor, I also struggle with balance every week. I understand when your child feels a bit overwhelmed during various times of a course.

5. My **WEBSITE**: [drdhartman.com](http://drdhartman.com) I usually post assignments daily. This is helpful for students, especially when they miss class. My website also gives you the opportunity to know what we are doing in class. I encourage you to take the time to bookmark my website; also spend some time getting to know more about my personal and professional background.

6. Videos: I use my iPad from time-to-time to create "help" videos. My goal is to have a help video for every review assignment handed out. I go through each and every problem on the review...sometimes I even offer more than one approach. There are times I create a "help" video for a concept that students struggle with. There are also times that I create a "lesson" video, created during the time I am actually teaching. I have made these in the past when large numbers of students are absent or the content is just of that "critical" type. These videos have helped so many students in the past. Students will find the links to my videos on the assignment log on the website. (There are even times when a student emails me...asking for help...I use my iPad to create a video that I can send back to that student within a matter of minutes!)

*Thank-you for taking the time to read this,*

*Dr. Hartman*