Algebra 1 Course Guidelines

Goals and Objectives:

1. To become familiar with new math terms and formulas that will be used throughout this course and subsequent ones
2. To master basic algebra skills including addition, subtraction, multiplication, and division of rational numbers (fractions, negatives, etc.); order of operations; ratios/proportions; and percents
3. To attain proficiency in simplifying, solving, and graphing linear and quadratic equations
4. To gain understanding about techniques for adding, subtracting, multiplying, dividing, and factoring polynomials
5. To explore rational expressions: simplifying, multiplying, dividing, adding, and subtracting them and identifying excluded values
6. To recognize patterns of solutions for various real-life applications such as rate/distance problems, dimension/area calculations, and cost analysis

Materials:

1. McDougal Littell’s Algebra 1 and Worked Out Solution Key

2. Two or three 3-ring binders: one or two (2- or 3-inch) for returned work and one to hold the current chapter’s Class Notes— 1/2-inch or 1-inch for class use.

3. GRAPH paper (4 squares per inch) for class and assignment use (visit www.printfreegraphpaper.com as an alternative)

4. Ruler

5. Calculator — ONLY TI-30Xa or TI-30XIIS; calculator is allowed only as noted (with an asterisk [*] on assignments) until after the 1st quarter

The smaller 3-ring binder, TEXT, GRAPH paper, and calculator must be brought to class.
**Course Points Allocation:**

- Tests: 50%
- Test corrections: 5%
- Quizzes: 25%
- Daily assignments: 15%
- Participation: 5%

**Syllabus:**

You will receive syllabi in two forms. The first will be a single-page document listing the lessons I plan to cover this year, along with approximate dates. I will also provide monthly syllabi, in the form of calendars. They will identify which daily assignments to complete and when they are due, and will help you keep track of quizzes and tests. I will post daily assignments (usually a month at a time, as a SINGLE file). In the event of any changes, I will email notices of updates.

**Tests/Quizzes:**

There will be 11 tests in total: 10 chapter tests and an in-class final exam. Generally, tests will be sent home in sealed envelopes with instructions enclosed.

Students must complete tests on their own: NO OUTSIDE RESOURCES (or help of any kind) permitted. No calculators will be allowed, unless specifically noted (usually after the first quarter.) A parent’s signature over the seal of the envelope will be required, to affirm that the test was proctored and that no outside resources were used. Unsigned tests will result in a twenty point grade reduction; the test will be returned to the student to be signed by a parent and turned in the next class day. Otherwise, late tests will NOT be accepted.

Test corrections will be required; these will be listed (and more information provided) on the daily assignment sheets and will count as a separate grade.
Students will complete four in-class quizzes per quarter. They will be short, intended to check for understanding and to encourage students to keep up with the reading.

Daily Assignments:

1. Daily assignment sheets will contain a detailed list of what must be completed each day and will be in the form of a checklist for clarity and accountability between parent and student. Assignments will be posted about a month at a time, generally the week before the start of the new month, with ALL that month's assignments contained in a SINGLE file. For the first month or so, students will find due dates included; for the remainder of the year, please refer to the Excel calendar for due dates.

2. Work must be done on GRAPH paper, in pencil with name, date, and assignment number written in the UPPER RIGHT corner. Exercise sections, page, and problem numbers should be clearly labeled and each assignment stapled separately with pages in order.

On the last pages of the course guidelines, please read through the instructions for all written work for this class (“Expectations”): they may seem a bit tedious at first but will prove helpful down the road.

Please print out and store a copy of these instructions in the binder to be brought to class. We will go over them the first day of class.

3. NO calculators are to be used on daily assignments unless specified—an asterisk (*) by a problem means a calculator is permitted. Students will eventually be allowed to use them regularly, by the first part of the second quarter. This change will be posted on assignment sheets. We will use calculators in class throughout the year. Please be sure to provide your student with ONLY a TI-30Xa or TI-30XIIS calculator.
4. All work must be turned in at the beginning of class. **Late work** will result in a 2 point (out of 10) **reduction** in grade. Assignments **more than one class day late** will receive a **zero** grade. If a student is absent, the assignment may be turned in the next class day. Each assignment is worth 10 points. Points are allocated as follows:

* Fully completed, checked, and corrected assignments will receive **10 points**.
* Completed work that is checked by parents but **not** corrected by students will receive a maximum of **7 points**.
* Completed work that is **neither** checked **nor** corrected will receive a maximum of **5 points**.
* I will also deduct **points** for any graphing work **NOT** done on **graph paper** WITH a **RULER** or for any work that does **not** follow Expectations for **Written Work**.

5. After reading a section, students may be asked to “work through some Examples & Guided Practice.” Students may decide for themselves (or with your help) how many to complete; my intention is that they try some of them to make sure they understand the new concept before moving on to the actual exercises. These do not need to be turned in, **unless specifically noted** on the assignment sheet. (The Guided Practice, or GP, will appear in **bold print**, with its own bullet point and specific problems listed, if the problems are to be turned in.)

6. Problems for daily assignments are often taken from multiple sections of the text. Because of this, you may find it helpful to tab each section, both in the text and the solutions manual.

7. Completing the daily work is critical to students’ success; concepts build upon concepts in math, and algebra forms the foundation for all subsequent, higher level math courses. Putting in the time now to thoroughly learn the basics of algebra will yield long term benefits!
Checking/Correcting assignments:

Parents are responsible for CHECKING student work.

* In color pen or pencil, circle problem numbers that are incorrect and return the work to the student to correct. Students must completely rework incorrect problems. New work should be done to the right side, if there is enough room, OR clearly labeled and attached on a separate page; do NOT erase incorrect work.

* After your student has completed corrections, CHECK the new solutions.

* Repeat process of checking/correcting until student has answered ALL problems correctly.

* Put a check mark (✓) on the top of the first page and INITIAL it to confirm that you checked and your student corrected all work.

Full credit will be given for assignments that have been completely corrected. If there are no errors, please note it at the top of the first page ("– 0" is fine).

Participation:

Students should come to class on time, prepared to ask and answer questions (not necessarily get the correct answer!)

Please feel free to contact me with any questions or concerns. I'm looking forward to a great year!

In Him,
Carol Stearns

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Expectations for Written Work

All submitted work needs to be done with care. It should be neat, readable, and logically accurate (best effort here! 😊) Expressing yourself clearly is as important in math as in any other subject; solutions should be understandable—to others in the class as well as your instructor.

Below are some guidelines to follow for your assignments. See page 8 for sample problem.

1. At the top, right-hand side of the page, write your name, date, and assignment number ("Asmt 9").

2. **Label** the exercise section, page number, and problem number, for example—"Exc. 3.2 p. 127 # 4."

   Offset the exercise section to the left and **underline** it if there is more than one problem for that particular section, rather than rewriting it over and over.

3. **ALWAYS** write the **ORIGINAL** equation (or expression) given and **SHOW** work/steps of solution. **SKIP** a space between problems.

4. **Work** **DOWN** the page, which means that
   - the next problem should start **below** the current one, **NOT** beside it.
   - each new step of a problem solution should follow logically from the previous one; otherwise, provide some explanation between the two lines (steps of solution.)
   - when you get to the bottom of a page, go on to the **BACK** of the page: do **NOT** start a separate column on the current page.

5. **Check** your work (when required) to the **RIGHT** of your actual solution:
   - LABEL and underline it: **"Check:"** or **"Chk:"**
   - keep it separate from the main work
6. **CIRCLE** final answers to distinguish them from the rest of your solution and include any appropriate units (inches, dollars, centimeters, gallons, etc.)

The only **EXCEPTION** to this rule would be answers to problems that do not require work (which you will not come across often!) An example would be a true/false question; for such a problem, you would simply write as your answer the word true (or false) WITHOUT circling it.

7. Good mathematical writing consists of **English** and **mathematical phrases or sentences** (otherwise known as **expressions** or **equations**), and they should all be used correctly. In particular,

* use the equal sign (\(=\)) carefully: be sure the two sides truly ARE equal and use only **ONE** equal sign per line of solution

* include applicable **general formulas** (for ex: \(A = s^2\) for area of square problem)

* define any **variables** used for word problems (more about this topic when we get to Ch. 2)

8. Include **diagrams/drawings**, as appropriate (for example, with volume problems):

* draw carefully, giving as **accurate** a representation as possible.

* **label**—vertices, sides, axes, numbers on axes, etc. (more about this in Ch. 4)

* do not make diagrams (or graphs) too small.

* use a **straight edge** (ruler) where appropriate, for graphing, for instance.

9. Write in **PENCIL** always.

10. Use **GRAPH paper** (4 squares per inch preferred) for **ALL** work.

11. **Staple** sheets together in order; **EACH** assignment should be stapled **separately**.

12. See "Sample Problem/Assignment" on next page for a worked out example.
SAMPLE PROBLEM / ASSIGNMENT

Mark Twain
10-8-17
Asmt 36

Exc 3.6 (Quiz) p. 173  # 6

13x + 3(x + 11) = 8x - 7  
Start with GIVEN EQUATION

13x + 3x + 33 = 8x - 7  
Simplify, working down the page AND retaining the EQUAL sign

16x + 33 = 8x - 7  
Simplify ONE step (per side) at a time; keep working DOWN the page, retaining ALL unused parts of equation

16x + 33 - 8x = 8x - 7 - 8x  
Apply ONE inverse operation at a time: SHOW work! Keep going DOWN the page

8x + 33 = -7  
Simplify after performing inverse operation

8x + 33 - 33 = -7 - 33  
Inverse operation again: SHOW work

8x = -40  
Simplify (after inverse operation)

\[
\frac{8x}{8} = -\frac{40}{8}
\]

8x = -5  
Inverse operation: use FRACTION to show division

x = -5  
And simplify to arrive at final answer

Final Answer: x = -5  (circle on your assignments)
PLEASE **SIGN** AND RETURN BY **AUGUST 28TH**. This will count for a grade.

I, _______________________________ , have read and understand the requirements for this course. By signing below, I agree to keep the Expectations for Written Work in my notebook and follow its guidelines for completing assignments. I further agree to conduct myself during class in a manner that will glorify God and uplift my fellow classmates.

_______________________________________
Student Signature

I, _______________________________ , have read and understand the requirements for this course. I will check my student's assignments and hold my student responsible for doing the work required for this class.

_______________________________________
Parent Signature