Pre-Algebra 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
- To master basic skills including addition, subtraction, multiplication, and division of rational numbers (fractions, decimals, negatives, etc.); order of operations; ratios/proportions; and percents
- 3. To attain proficiency in evaluating variable expressions and evaluating/solving simple linear equations
- 4. To learn methods of graphing for equations in one and two variables
- 5. To gain understanding about techniques for adding, subtracting, and multiplying polynomials
- 6. To explore concepts in geometry: right triangles, surface area, and volume
- To recognize patterns of solutions for various real-life applications such as rate/distance problems, dimension/area computations, cost analysis, and interest calculations



<u>Materials</u>:

- 1. McDougal Littell's Pre-Algebra and Worked Out Solution Key
- 2. Two 3-ring binders: a large one for returned assignments/assessments and a 1-inch binder for class use to hold the current chapter's handouts (Class Notes).
- 3. **GRAPH** paper (4 squares per inch) for class and assignment use (visit <u>www.printfreegraphpaper.com</u> as an alternative)
- 4. Ruler, highlighters, pencils
- 5. Calculator ONLY **TI-30Xa** or **TI-30XIIS**; calculator is allowed only **as noted** (with an asterisk [*] on assignments) until <u>after</u> the 3rd quarter.
 - ** <u>The text, 1-inch</u> <u>3-ring binder</u>, <u>GRAPH</u> paper, <u>calculator</u>, <u>highlighter</u>, <u>pencils</u>, <u>and ruler must be brought to class each day</u>. **

Course Points Allocation:

Tests	45 %
Test corrections	5%
Quizzes	25 %
Daily assignments	20 %
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) on Weebly. In the event of any changes, I will email notices of updates.



Tests/Quizzes:

There will be 11 tests total. Generally, tests will go home in sealed envelopes with instructions; the final chapter test will be an **in-class** exam on the last day of classes.

Students must complete tests on their own: NO OUTSIDE RESOURCES (or help of any kind) permitted. No calculators will be allowed, unless specifically noted. A parent's signature over the seal will be required, to affirm that the test was proctored and that no outside resources were used. Unsigned tests will result in a ten-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 <u>corrections</u> 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 or five **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 (posted on Weebly) 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 Calendar (syllabus) for due dates.

 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 <u>print and store a copy of these instructions in the binder to be</u> <u>brought to class</u>. 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 more regularly the last quarter. This change will be posted on assignment sheets. We will, however, make use of calculators throughout the year during class time. 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 <u>not</u> corrected by students will receive a maximum of **7 points**.
- * Completed work that is <u>neither</u> checked <u>nor</u> corrected will receive a maximum of **5 points**.
- * Students may also lose points for any graphing work **NOT** done on **graph paper** with a **ruler** or for work that does **not** follow *Expectations for Written Work*.

5. After reading a section, students will be asked to "work through some Examples & Checkpoints." 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 Checkpoint, or CP, will appear in **bold print**, with its own bullet point and specific problems listed.)

6. Completing the daily work is critical to students' success. Putting in the time now to thoroughly learn the basics will yield long term benefits!



Checking/Correcting assignments:

Parents are responsible for checking student work: instructions on next page.

- * In color pen or pencil, CIRCLE problem numbers that are incorrect & return the work to the student to correct. Students must COMPLETELY rework incorrect problems. New work should be done to the side (right), 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 <u>check mark</u> [J] on the top of the first page and <u>SIGN</u> to confirm that you did check 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).
- If all problems are NOT fully corrected, please list the number wrong (for ex. "-3").



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 along the way this year if you have any questions or concerns. Looking forward to sharing the challenges and joys of learning more about the language of mathematics with you and your students!

In Him, Carol Stearns

kstearns@woh.rr.com



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.

- At the top, right-hand side of the page, write your NAME, date, & ASSIGNMENT number ("Asmt 9").
- 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 <u>underline</u> it if there is more than one problem for that particular section, rather than rewriting it over & over.

- 3. Always write the ORIGINAL equation (or expression) as given and show COMPLETE work/steps of solution. SKIP a space between problems.
- 4. Work **DOWN** the page, which means that
 - * the next problem should be started **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, begin a **new page** (or use the back); 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: "<u>Check</u>:"
 - * keep it separate from the main work.

6. Circle final answers to distinguish them from the rest of your solution & include appropriate units (inches, dollars, centimeters, gallons, etc.)

The only EXCEPTION to this rule would be GRAPHS, which should not be circled.

- 7. Good mathematical writing consists of **English** and **mathematical phrases** or **sentences** (otherwise known as *expressions* or *equations*), & they should all be used correctly. In particular,
 - * use the equal sign (=) carefully: be sure the two sides truly ARE equal!
 - include applicable general formulas (for ex: A = s² for area of square problem)
 - * **define** any **variables** used for word problems (more on this topic later In the year).
- 8. Include diagrams/drawings, as appropriate (for ex., with volume problems):
 - * draw carefully, giving as accurate a representation as possible.
 - * LABEL vertices, sides, axes, numbers on axes, etc.
 - * do not make diagrams (or graphs) too small.
 - * use a **straight edge** (ruler) where appropriate, for graphing, for instance.
- 9. Write in PENCIL.
- 10. Use **GRAPH** paper (4 squares per inch will work best) 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

	Blaise Pascal 10-8-21 Asmt 46
<u>Extra Prac. Ch. 3</u> p. 805 <i>#</i> 21	
16z - 18 = 4 + 5z	Start with GIVEN EQUATION.
16z - 18 - 5z = 4 + 5z - 5z	Simplify, working down the page, showing <u>ONE</u> inverse operation at a time, & retaining the EQUAL sign.
11z - 18 = 4	Simplify ONE step (per side) at a time; keep working DOWN the page, retaining ALL unused parts of equation.
11z - 18 + 18 = 4 + 18	Apply ONE inverse operation at a time: SHOW work ! Keep going DOWN the page.
11 z = 22	Simplify after performing inverse operations.
$\frac{11}{11}z = \frac{22}{11}$	Inverse operation: use FRACTIONs to show show division
z = 2	And simplify to arrive at final answer

<u>Final Answe</u>	<u>er</u> : <i>z</i>	=	2	(<mark>circle</mark> on your assignments)

PLEASE SIGN AND RETURN BY SEPTEMBER 1st.

** This will count for a grade. **

I, ____

_____, have read and understand the

(Print Student Name)

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 God-honoring attitude and manner that extends respect and consideration to classmates and tutors.

Student Signature

I, _____, have read and understand the

(Print Parent Name)

requirements for this course. I will check my student's assignments and hold my student responsible for carrying through with the work required for this class in a timely manner.

Parent Signature