

NOTEBOOK ASSIGNMENT

You will need some supplies and an organized notebook for your Algebra course.

By _____, you should have assembled all the items below.

Check off each one as you complete it.

■ Supplies

- _____ a three-ring notebook
- _____ five notebook dividers
- _____ a scientific calculator
- _____ lined, three-hole notebook paper
- _____ graph paper, hole-punched
- _____ a ruler, showing both inches and centimeters
- _____ pencils
- _____ a red and a blue colored pencil
- _____ eraser

■ Organization

- _____ Label the dividers for your notebook as follows:
 - Assignment Sheets
 - Daily Work and Notes
 - Reports and Projects
 - Tests and Quizzes
 - Reference
- _____ Put this sheet at the front of the Daily Work and Notes section of your notebook.

Here are some suggestions on how to do a good job on writing assignments.

■ Getting Started

When you first start, don't worry about writing the final report. Concentrate on solving the problem. Keep a record of everything you do, including false starts, but don't worry about being neat or explaining what you are doing.

■ The Outline

Decide how you will organize your report. Make a note of any questions that you do not understand or cannot answer completely. Discuss them with other students or with a teacher.

■ The Rough Draft

Make a rough draft of your report. Ask at least one person to read and critique it. This could be a parent, a student, or a friend. Your goal is not only to give correct solutions and explanations, but to communicate them clearly to someone who may not be familiar with this topic.

■ The Final Report

Make changes based on the critique of your rough draft. Your final report should represent your best work.

Although reports sometimes require you to solve a single problem, usually you will be summarizing an investigation that may include solving several problems. In either case, you can use this three-part format for your final report.

1. Problem Statement

- State the problem, topic, or main idea clearly.
- If you are summarizing the results of an investigation, you may be answering several questions. Look for the main idea that encompasses all the sub-problems.
- If it will help the reader to understand the problem, use a sketch as part of your explanation.

2. The Strategy and Solution

- If you are solving a problem, describe your approach. If you tried something that didn't work, include a brief explanation of it as well.
- If you are summarizing the results of an investigation, describe how you conducted the investigation.
- Show your calculations and explain them.
- Include graphs and tables, carefully labelled.
- Tell what variables stand for, and use units if appropriate. (Don't just write w . Let the reader know whether it stands for *width*, *water*, or *widget*.)

3. The Conclusion

- Explain the answer to the problem or summarize the results of your investigation.
- Write about any unresolved questions you still have.
- Comment on the problem or topic. If possible, suggest generalizations, applications, or extensions.

Writing assignments are equal to tests in the evaluation of your work in this class. Here is what your teacher will be looking for when reading the assignments.

■ The Math

- Did you understand the problem?
- Did you express yourself clearly?
- Did you summarize all that you learned about the problem?
- Did you answer all the questions?
- Did you think about the problem beyond what was asked?
- Were you creative in your approach?

■ The Presentation

- Do you have an introduction that states what the paper is about?
- Did you organize your paper into paragraphs?
- Did you illustrate the paper adequately?
- Did you avoid repeating yourself?
- Is the paper neat and legible? Is it beautiful?
- Were you creative in your presentation?

Include the following items in your portfolio.

1. Cover Letter

Write your teacher a letter about the chapter, including answers to these questions.

- What were the main important ideas in math that you studied in this chapter?
- What did you learn? Give examples of each of the main topics.
- What did you enjoy the most? The least?
- What do you understand the best? What would you like to learn better?

2. Table of Contents

Make a table of contents for your portfolio, including a brief description of each entry and why you chose to include it.

3. Favorites

Write *Favorite* at the top of each one.

- Your favorite lesson
- Your favorite Thinking/Writing assignment

4. Important Problems

Choose five problems that you think represent important ideas in this unit. For each one, copy the problem and show the solution neatly. Explain why you chose the problem.

5. Revisions and Corrections

- Include your original paper for Thinking/Writing _____. Revise and improve the assignment on a separate sheet of paper.
- Make corrections to your chapter test on a clean sheet of paper. Include both the original test and the corrections.

SEMESTER PORTFOLIO ASSIGNMENT

Include the following items in your portfolio.

1. Cover Letter

Write your teacher a letter about the semester, including answers to these questions.

- What were the main important ideas in math that you studied this semester?
- What did you learn? Give examples of each of the main topics.
- Write about your strengths and weaknesses. Describe the progress you have made this semester. What are you especially proud of? What are some concrete ways you can improve?
- What were the high points and low points for you mathematically?
- What did you enjoy the most? The least?
- What do you understand the best? What would you like to learn better?

2. Table of Contents

Make a table of contents for your portfolio, including a brief description of each entry and why you chose to include it.

3. Favorites

Write *Favorite* at the top of each one.

- Your two favorite lessons
- Your favorite Thinking/Writing assignment

4. Progress

Write *Progress* at the top of each one. Choose several pieces of work that show the progress you have made. You should include at least two writing assignments in this section of your portfolio.

5. Test Corrections

Make corrections to these tests on a clean sheet of paper. Include both the original tests and the corrections.

- Test ____
- Test ____
- Test ____

6. Semester Exam Preview

Complete Lesson ____, through problem ____. The semester exam will include some questions on this section. You may bring your notes on it to the semester exam.

7. Extra Credit

Do the project described in Lesson ____, problem ____.

These are some of the criteria your teacher may use to evaluate your portfolio.

■ General

- Is the portfolio complete? Does it include a cover letter and all the specific components (or specific assignments, if asked for) that were requested?
- Is there evidence, either from self-assessment in the cover letter, or from group work included, of being able to work effectively in a group?
- Does the student have a good sense of the level of his or her own work, the direction it is necessary to go in, and strengths and weaknesses?
- Has the student revised and improved work when given the opportunity?
- Is there evidence that the student is well-organized and is keeping track of his/her work?
- Does the portfolio show a variety of different work?
- Does the portfolio show progress over time?
- Is there evidence of enthusiasm for the course and for mathematics?

■ Competence in Mathematics and Communication

- Does the student use mathematical vocabulary and notation appropriately?
- Is there evidence of the student's ability to communicate effectively in writing? Does he or she elaborate sufficiently?
- Is there evidence of the student's ability to formulate problems?
- Is there evidence of the student's ability to develop and apply different problem-solving strategies?
- Has the student shown an ability to generalize?
- Is there evidence that the student can analyze and interpret results and make connections to what was learned previously?
- Is there any evidence of particular ways that this student learns best? (use of hands-on materials, visual strategies, facility with words, sketches, or with using the calculator?)

■ Specific Content

- Does the cover letter show that the student has a grasp of the main ideas from the period included?
- Are particular strengths or weaknesses in terms of specific content revealed by the table of contents?
- Does the student show particular weaknesses in background or problem-solving strategies that make understanding of certain content particularly difficult?