

# THE MONTHLY MATH PROGRAM

## AT MT. EVEREST ACADEMY

*Also called “How to Do Math at Mt. Everest Academy”*

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SUMMARY (details for each section on the following pages):

- 1. Preparation:**
    - a. Plan.
    - b. Get materials.
  - 2. Learning:**
    - a. Instruct from the textbook.
    - b. Take notes.
  - 3. The Monthly Math Work:**
    - a. Do all required work.
    - b. Show all work.
    - c. Use solution manual.
    - d. Take notes.
  - 4. Review:** 10 minutes every day.
  - 5. Practice:**
    - a. One to two hours every day after the required work is finished each month.
    - b. Memorize.
    - c. Do practice test.
  - 6. The Monthly Math Test:**
    - a. Take it on time.
    - b. Be prepared first.
    - c. Must be done in one sitting, no notes, calculator depends on course.
  - 7. Retaking the Monthly Math Test:**
    - a. Get test back.
    - b. Make corrections.
    - c. Study/practice.
    - d. Retake only at posted times.
    - e. Must still keep with new month’s learning, work, and test.
  - 8. Teacher’s Final Comments:** Communicate, practice, don’t procrastinate.
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## IMPORTANT LINKS

Teacher’s email address: [jgreenwood@sandi.net](mailto:jgreenwood@sandi.net)

Math Dept. Main Page: <http://pilgrimandpatriot.com/math.html>.

Math Dept. Frequently Asked Questions webpage: <http://pilgrimandpatriot.com/QmathFAQ.html>.

Math Dept. Weekly Update Webpage: <http://pilgrimandpatriot.com/WeeklyMathUpdates.html>.

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# 1. Preparation:

- **Planning**

- Make schedules, to make sure everything on the required work list gets done, along with enough time to practice before the test:
  - **DAILY** (plan 1 to 2 hours of math each school day). You want to generally do about one section each day, starting first with 10 minutes of review. If you learn the new section really well and can do the required work quickly, you might be able to get by with less than an hour. However, remember that getting done fast is not what's important—learning the math is what's important. A student might need more like 2 hours on some days, because the student might not understand it well at first, and will have to spend more time studying the examples and learning and practicing.
  - **WEEKLY** (use the pacing guide at <http://pilgrimandpatriot.com/QPacingGuides.html>). Do not try to do all the math in one or two or three days each week. Math is not something you can remember easily unless you're doing it often. There's also too much to really learn just a couple of days a week.
  - **MONTHLY** (again, use the pacing guide).
    - Plan a day to do the practice test or study guide. DO NOT WAIT until a day or two before taking the monthly test. You need to use the practice test to help you figure out what things you don't know well enough yet, and
    - Plan at least 3 more days for practice before taking the monthly test.

- **Materials:**

- From school
  - Required Work List / Cover Sheet
  - Textbook
  - Solution manual
  - Workbook for Pre-Algebra and Algebra
- At home
  - Pencils/pens
  - Paper/notebooks
  - Binder/folders/equivalent

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# 2. Learning

- **7<sup>th</sup> and 8<sup>th</sup> grade:** The parent teaches at home, generally one section each day. Break a section into parts, usually one part for each example (each example's purpose is to show one new major thing happening). Basic things to do in the learning phase:
  - Parent and student together read to understand the “instruction” that comes before an example.
  - Parent and student together follow carefully each step in the example.
  - **NOTES RECOMMENDED:** The student should write as notes the new thing learned in or before the example, and/or things which could be confusing, and/or things that have to be memorized. The parent needs to teach the student how to do this. (Teacher's note: There are many ways to take notes, no one right way. It's best to figure out what makes the most sense to the student, what will help the student best remember the material.) These notes may only

be used as extra credit if they are completed per the directions for extra credit. See the FAQ page, category E, for information about math extra credit.

- Student starts doing the monthly work (see section 3 below).
- **High school students:** The student is responsible for doing the work well and on time. The parent is responsible to help the student set up and keep to a schedule, and to help or find help when the student needs it. Basic things to do in the learning phase:
  - Student reads to understand the “instruction” that comes before an example.
  - Student follows carefully each step in the example.
  - **NOTES RECOMMENDED:** The student should write as notes the new thing learned in or before the example, and/or things which could be confusing, and/or things that have to be memorized. (Teacher’s note: There are many ways to take notes, no one right way. It’s best to figure out what makes the most sense to the student, what will help the student best remember the material.) These notes may only be used as extra credit if they are completed per the directions for extra credit. See the FAQ page, category E, for information about math extra credit.
  - Student starts doing the monthly work (see section 3 below).

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### 3. The Monthly Math Work

- Do all the work that’s required on the required work list.
- Show all the work: all steps in every problem. For details and explanation about this, go to the FAQ page, question A5.
- Setting up to do the work:
  - **Use the correct heading** (see the required work list directions). The main point of this is to make sure every page is titled so the teacher can know exactly what you’ve put there. You must do it exactly as the teacher requires, because the teacher has between 100 and 150 students, and he does not have enough time to figure out numerous different ways students might head their papers.
  - **Use a new side of paper for each new section of work.** DO NOT combine work from the two textbook sections on one side of a piece of paper, even if it means that you’ll have some extra space on one side of a piece of paper. You may use both sides of a piece of paper, and you may start a new section on the back of a piece of paper.
- When doing the work:
  - **7<sup>th</sup> and 8<sup>th</sup> grade:**
    - Student does some problems with parent supervision. Student uses the solution manual to check answers and steps. Parent models using the solution manual a few times to show the student how—but the parent checks regularly to ensure the student is using the solution manual correctly. **Teacher’s recommendation:** the student can check for answers as often as after every single problem, in order to compare the steps shown in the solution manual to the steps the student did, until the student fully understands, easily recognizes, and can easily do every step. The emphasis in doing the work should be on the steps, even though getting the right answer is still the overall goal.

- Parent assigns problems for student to do alone. Problems should be as required on the official required work list.
  - Doing extra problems is fine, and is helpful as extra practice. No extra grade is earned for doing extra problems, except that a student might score better on the monthly test as a result of doing extra problems well.
  - **High school:**
    - Student starts doing the problems as required on the official required work list.
    - Student uses the solution manual to check answers and steps. The student can do this as often as after every single problem, in order to compare the steps shown in the solution manual to the steps the student did, until the student fully understands, easily recognizes, and can easily do every step. The emphasis in doing the work should be on the steps, even though getting the right answer is still the overall goal.
    - Doing extra problems is fine, and is helpful as extra practice. No extra grade is earned for doing extra problems, except that a student might score better on the monthly test as a result of doing extra problems well.
  - **SEE THE FAQ PAGE, CATEGORY A**, for more details and specific questions students and parents have asked. URL: <http://pilgrimandpatriot.com/QmathFAQ.html>.
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## 4. Review:

- **Daily Review:**
    - Start each day's math with some review: 1 problem from the day before, 1 problem from the day before that, and 1 problem from the week before, or problems you know you have difficulty doing.
    - YOU (student or parent) choose which problems. The problems can be exactly the same as already done in the past. The idea is simply to help remember things better. NEVER trust that just because you did something correctly one day that you're going to remember it the next day or the next week, unless you practice it continuously.
  - **Chapter/Monthly Review:** After you finish all the required work, go back through all sections and do selected problems to make sure you remember everything. You can do this through using the monthly PRACTICE TEST or STUDY GUIDE (some classes have a practice test, while others have a study guide; Geometry has both). Use these in the right ways, which are identified in the directions provided, and in the FAQ page, question C4.
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## 5. Practice:

- You need to practice as much as you have time for...and if you have difficulty in math, you need to find even more time to practice!
- A helpful handout about practice is available at: <http://pilgrimandpatriot.com/HowToEarnAnAInMath.pdf>.
- Use the practice test or study guide, depending on your course.
  - Practice test (*Pre-Algebra, Algebra, Geometry, sometimes Int. Alg, Pre-Calculus Regular and Honors*):
    - Follow the directions given with the practice test. Briefly, the student should do every problem, then analyze carefully all errors, to understand why a mistake occurred. Then the student should do many more of those problems. In fact, the student should

do more even of the ones that were correct. The student should identify the more difficult problems, and practice that type.

- The student (and parent if the student is in 7<sup>th</sup> or 8<sup>th</sup> grade) should match test problems with textbook problem to find similar problems for practice.
  - The student should practice even the same problems completed for the required monthly work. The student is not going to remember exact answers from 1, 2, or 3 weeks before. Therefore, all those problems are fair game for practice.
  - Study Guide (*Unifying, sometimes Geometry, Int. Alg, Pre-Calculus Regular and Honors*):
    - A study guide identifies the exact textbook examples and problems which are similar to or actually mirror the monthly test.
  - **SEE THE FAQ PAGE, CATEGORY C**, for more details and specific questions students and parents have asked. URL: <http://pilgrimandpatriot.com/OmathFAQ.html>.
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## 6. The Monthly Math Test:

- There is one math test each month. Students should be prepared for this test if they have done the monthly required work, taken notes and studied, used the practice test, and practiced even more.
  - Students have a four-day window for taking the monthly math test. The four days are Tuesday through Friday, either the last week of a school month, or the week after the school month ends. The exact dates of each school month's math test week are stated at the top of each month's required work list, and that are also available at <http://pilgrimandpatriot.com/QImpMathDates0910.pdf> or on the Math Department's semester calendars.
  - Students must take the math test on time. The penalty for taking a test late is BOTH:
    - Fifteen percent (15%) loss of grade for that test, and on the retake, if the student needs to retake the test, AND
    - Extra credit may not be used for the test, or for the retake test.
  - In the case of an emergency, or a prior planned absence for the entire test week, a student might be allowed to take the test later without penalty. However, a parent, NOT THE STUDENT, must contact the math teacher BEFORE the end of the test week to confirm the validity of the absence.
  - **SEE THE FAQ PAGE, CATEGORY B**, for more details and specific questions students and parents have asked. URL: <http://pilgrimandpatriot.com/OmathFAQ.html>.
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## 7. Retaking the Monthly Math Test:

- Students are allowed to retake most monthly math tests. Exceptions:
  - Students may not retake the month 5 math test because it's at the end of the first semester, and there is no time remaining in the semester for retaking that test.
  - Students may not retake the month 10 math test because it's a take-home test, and they're expected to use the textbook and other materials. A retake is not necessary.
  - Student may not retake district or state tests, because the district and state do not allow retakes on those tests. This includes the quarterly benchmark test and the End-of-Course Exams.
- Students may retake a monthly math test no matter what the first test's grade was. However, the two grades will be averaged. First-test grades that are very low will be raised to 60% only for the purpose of averaging.

- There is only one retake test for each month's test. The retake test is a second version, with exactly the same type of problems, just with different numbers or scenarios, and graded in the same way.
  - Students may only retake a math test on Mondays at 1:00 in room 3, or during the math test week.
  - Students may not put off the next month's test in order to retake an old math test. Preparing for and retaking a math test is on the student's own time, not to interfere with the next month's work or test.
  - Students may retake a math test any Monday at 1:00; there is no deadline, except the end of the semester. That means that a student who wants to retake the September test does not have to do it before the October test. The student can do it as late as February 8, since that will be the last retake test day before the teacher has to submit the final semester 1 grades.
  - Students who completed extra credit for the first test do not have to redo it. The five points for that extra credit will also be applied automatically to the second test. If a student did not do the extra credit for the first test, the student is welcome to do it for the retake test, but must submit it in the correct manner (turning it in at the time of taking the retake test).
  - **SEE THE FAQ PAGE, CATEGORY D**, for more details and specific questions students and parents have asked. URL: <http://pilgrimandpatriot.com/QmathFAQ.html>.
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## 8. Teacher's Final Comments:

- **Communicate!**
  - Ask questions (read the FAQ page first, in case your question is already answered there).
  - Read the things from the teacher, especially the weekly update page.
- **Practice!** It is absolutely the one main thing that separates good grades from bad grades. Be warned that understanding math doesn't mean you'll get it right; you need to practice it for mastery. "Mastery" is to know it perfectly, no hesitation, no uncertainty—and to get it right every time. So make sure you practice every day, isolate things you don't know or aren't totally sure about, and do them over and over and over...you get the idea.
- **Don't procrastinate!** Waiting until the last minute, or just putting something off or a few days, is dangerous. It's very, very hard in independent study to catch up when you fall behind. The new work does not stop coming, and there are always other things that can get in your way and slow you down. So get things done on time, or even early, every month in every subject.
- **Every year** between 5% and 10% of my students fail their math course, and some others earn D or C grades when they should have earned A and B grades. In almost every case, the student failed or did poorly because of one of these three things: didn't read my information so they missed things or did things incorrectly, didn't practice enough, or waited too long and found out they hadn't left themselves enough time to really be ready for math tests. The number one reason: they didn't practice enough.