

How to Earn an A in Math

Practice does not make perfect. Only perfect practice makes perfect. –Vince Lombardi

Practice is the **ONLY** way to do well in math. LOTS of practice. Enough to get sick of it. Until you've memorized everything. Yes, it's true that you need to understand the concepts. However, that's only half of math. You must also practice a concept so much that you get it right—every time. Understanding the concept doesn't mean anything if you don't get the right answer. You won't get the right answer if you don't understand the concept, but understanding the concept does not guarantee that you'll get the right answer. You'll forget the little details of the steps to get to the right answer.

There's more than "just practice." **You have to learn to practice in the right way.** You may have heard the saying, "practice makes perfect." No, it doesn't. **Perfect** practice makes perfect. So, learn to do perfect practice. In my math classes, this is what perfect practice looks like:

1. Understand the concept (you can't practice if you don't know what to do).

(ONE DAY FOR EACH SECTION)

- a. Study the explanation in the textbook.
 - i. Read it carefully, follow the logic in the sentences and paragraphs, and make sense of what the author is trying to tell you.
 - ii. WRITE in your own words what the concept is.
- b. Study the examples.
 - i. Pay close attention to each and every step that is shown in solving the examples.
 - ii. WRITE for yourself and in your own words EXACTLY how to do the problem.

2. Practice, Part 1: Do the problems assigned. *(ONE DAY FOR EACH SECTION)*

- a. Do only 2 to 5 problems at a time.
- b. After each small set of problems, check to see if correct. CHECK ONLY THE ANSWER, NOT THE STEPS.
 - i. Any incorrect problems: you must redo them, using examples/notes to verify doing the correct method.
 - ii. Check again to see if correct. This time, if any are incorrect, you must match the answer key steps with your steps, to find the discrepancy.
 - iii. WRITE the specific steps you had problems with. Those steps are the things to spend extra time memorizing and looking for, since you now know they can be difficult part for you.
- c. Do this all the way through. If you want to stop and check after every problem, that's fine. After a few problems, you may feel more confident to do more than one at a time.
- d. NEVER do a full page of problems before checking. If you're wrong on most of the problems, then you just wasted your time.
- e. Complete all the required monthly work ONE WEEK before you plan to take the monthly math test.

3. Daily review. *(TEN TO TWENTY MINUTES AT THE BEGINNING OF EVERY SCHOOL DAY IN THE MONTH)*

- a. Every day, start math time with review. By review, I mean go back to problems from previously completed sections. Choose one problem from the day before, one problem from the day before that, and one problem from the week before. If it's late in the month, make sure you include problems from the early sections of the month.
- b. Pay attention to where you choose the review problems from. Make sure that over the course of every few days, each type of problem, starting from the beginning of the month, is reviewed.
- c. The review problems can be the same problems that you already completed in the days or weeks before. The purpose of this review is primarily so you do not forget the things from the days before while learning new information.

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