

Have you ever noticed your teen's math tests being handed back with less than flying colors?

If you're like a lot of parents I work with, you want your teen to enjoy and do well in math. In middle school especially, students learn math concepts that are the basis of every one of their future math classes.

Even more importantly, middle school is when students make decisions about whether or not they're good at math, and how they will feel about math classes from now on.

Fortunately, [you as a parent can help](#)...whether or not you remember the details of quadratic equations and right triangles.

## Math Class is About Strategy

In math class, students often learn great strategies. Teachers demonstrate how new math concepts are linked to ones they already know, and to everyday life. This helps students build a mental library of math-related skills, which in turn helps them learn.

But it isn't enough.

"Strategy without tactics is the slowest route to victory," said Sun Tzu in the 5th century B.C. Strategy has to do with your overall plan. Tactics have to do with the details — the tools you need, and how you use them each day.

As a former math teacher, I found that there are a few key tools that are essential for learning math.

Unfortunately for many middle and high school students these days, those tools are missing. Let's take a look at three of them.

## The Essential Tools to Nail Your Math Tests

### 1. A Math Book

I was surprised to learn that most of the students I work with don't have math books. This has to do partly with the relatively new Common Core standards, the willingness of textbook companies to rewrite their textbooks, and the willingness of school districts to purchase them.

Teachers work hard to put together something that matches these new standards, and often

end up pulling from a number of different textbooks and other sources. (If you're interested in reading more about this complex problem, [you might start here.](#))

The result is that instead of a book, students come home with "packets". They're easy to use, each day's homework is included, and students usually know exactly what they are supposed to do.

The problem? While these nugget-filled packets can be very helpful, they are not enough. Can you imagine, for example, learning Shakespeare through packets?

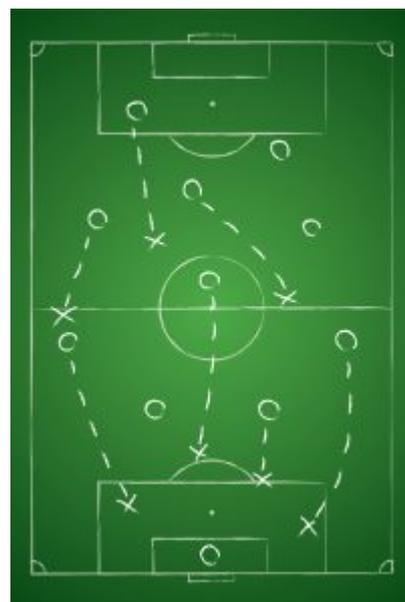
To learn math, students need books. Books include worked out problems, definitions, examples. They also include answers to odd numbered problems (see #2).

If you have a teen who hasn't been assigned a book, head over to your favorite online bookstore and buy one for about \$10.

## 2. Answers to All Assigned Problems

The second essential tool is a set of answers — which are usually found in the back of the book. Students who want to do well on math tests check the answer key often (but only after attempting the problems, of course).

If your student does homework in packets, then there should be some way to get the answers in class the next day. Some teachers read them. Others post them on the board. Others still pass around photocopied answer keys.



Unfortunately, not all teachers post answers. Instead, they provide in class "a chance for students to ask questions about anything they don't understand."

This might work, if students knew what they didn't understand. Most of the students I work with (the ones without books and access to answers) believe their math is correct.

A quick scan of the page, however, tells me that it's not. This means that they're practicing doing problems incorrectly and not realizing it. When the test comes, they're surprised at the low scores and think that they must not be very good at math.

Most of the parents I work with want to help their students practice correctly. That means helping your student find a way to get his or her answers corrected every day. You might, in order of preference:

1. ask the teacher to post answers
2. suggest that your student get corrections at the teacher's daily office hours
3. correct completed assignments yourself if you have the knowledge
4. hire a tutor (inefficient, but a last resort)

### 3. The Math Problems

The third tool has to do with action. In other words, your teen has to dig in.

This action centers around doing problems, doing them correctly, and doing them until they are easy. Think of it like of swimming. No one learns to swim by listening to lectures, or wading around in the shallow end. You learn to swim by doing laps.

You learn math by doing problems.

There's the homework, of course. Most students do that. But that's usually not enough to do well on math tests. Here are some next steps:

If a problem is hard, work it again the next night. Redo a problem that the teacher put on the board in class. Cover up the solution to a sample problem in the textbook, and see if you can think of each next step.

This practice will [help your teen nail math tests](#).

You'll love the boost of confidence your teen gets when math tests start to seem easy.

### The Take Home Message

These three simple and workable tactics have successfully improved the grades of many teens struggling with their math tests. Teens who have a textbook, use the answer key, and practice hard math problems score well on math tests. Even better, they feel more confident about themselves as students, and start to enjoy math.

For more help on how to support your teen in their academic endeavors, feel free to [contact me](#). I'd be happy to help develop a personalized strategy that meets your needs.