

IN THIS CHAPTER

- » Understanding old math, new math, and Common Core math
- » Getting over the fact that old math has worked well for you
- » Meeting your child's math needs
- » Establishing a teaching routine
- » Understanding the return on your investment of your teaching time
- » Keeping things positive

Chapter **1**

Parent, Provider, and Now, Math Teacher

Many people have visions of parenthood being the joys of having a family and raising kids. There are visions of vacations on the beach, family barbecues, and happy evenings filled with board games at the kitchen table. Then, life happens. Evenings get interrupted by work calls and emails, work creeps into the weekends, and budgets that looked great on paper, never quite work out. On top of that, your pride about, and excitement for, parent-teacher conferences may get replaced by fear and nervousness at finding out that your child is learning new math and that the word “new” seems to mean only that the math is new to you!

The good news — yes, there is good news — is that you’ve picked up the right book! I get it! Old math may not have been one of your favorite things. In fact, you may worry that you have forgotten more old math than you remember. That’s where this book fits in. It will remind you of, or possibly reteach you, the key old-math concepts. I think you will be surprised by how much you remember! This book will then teach you the new-math techniques you must know, and how to teach those concepts to your kids!

This chapter introduces you to new math — what it is and, more importantly, why you need it. It makes sense of Common Core math and how it relates to new math. Finally, this chapter helps you clarify why you have chosen to put on a math-teacher hat and gives you some pointers and hints to help you succeed.

New Math? What Was Wrong with Old Math?

When I grew up, kids played outside all day, drank water from the hose, and knew to be home before dark. I also learned “old math,” which seems to have worked well for my adult needs. I know how much money I can spend, and how much change I should receive. I can recognize higher prices as well as good deals. If you had asked me a few years ago, I would have said that old math was just fine.

That said, things change over time. Many cars no longer stop for gas, but rather, to plug in. Drivers who couldn’t wait to get their learner’s permit when they were young, now look forward to self-driving cars. And teachers have found more effective ways to use math to solve problems.



New math, simply put, provides new ways to solve problems. Carrying and borrowing to add and subtract have been replaced with number lines, and old-school multiplication has been replaced with new techniques that use boxes:

$$\begin{array}{r} 37 \\ \times 23 \\ \hline \end{array}$$

	30	7
20	600	140
3	90	21

$$\begin{array}{r} 1 \\ 600 \\ +140 \\ + 90 \\ + 21 \\ \hline 851 \end{array}$$

The good news is that numbers have not changed, and you still use the symbols +, −, ×, and ÷ for addition, subtraction, multiplication, and division.

All of that said, I like the new-math techniques. They are straightforward, they work, and they are fast to use. After you set aside your fears and nervousness, I think you will like them, too!



TIP

Starting out, the best tip I can offer you is to be open to new ways of learning — especially if you want to help your child master new math strategies. My goal in presenting the techniques in this book is to make it enjoyable for your child to learn new math with you. The bond you will create with your child is possibly more important than establishing their math foundation for future success.

Old Math, New Math, Common Core Math

I can remember when there was just math. It was the third “R” in Reading, wRiting, and aRithmetic. Now, when someone uses the word *math*, you must ask, “Which one: old-school math, new math, or Common Core math?”

Old-school math is the math most of us learned. Like a trusty old pickup truck, old-school math still works. As such, throughout this book, I present many old-school-math techniques that you should teach to your child.

New math includes new ways to add, subtract, and multiply numbers. Like a brand-new, shiny pickup truck, new math also works. Unfortunately, most people are introduced to new math with their child’s homework assignment, which is due the following morning. Fortunately, this book will teach you what you must know to teach your child new-math techniques.

It used to be that smart people in each state would get together and establish the state’s learning curriculum — the things teachers in that state would teach. The problem was that each state’s curriculum was different. What a sixth-grader learned in New York might be different from what a sixth-grader learned in Arizona or Montana. Simultaneously, math scores within the United States were falling. In fact, as of 2015, math scores in the United States had fallen from first to 35th in the world!

In 2009, the National Governors Association and the Council of Chief State School Officers got together to create the Common Core State Standards Association. From that group, Common Core math was born.

If you ask a roomful of educators to comment on Common Core, you will hear a wide range of opinions. Some love it! They want to see standards across grade levels and across the country. Others hate it! They want the government to leave curriculum decisions to the individual states. This book does not debate for either

side. Instead, I simply present the math skills these groups identified as important for your child to know and for teachers to teach.



Common Core math encompasses the recommended math concepts that teachers are directed to teach. Because Common Core math includes many new math techniques, many people use the terms interchangeably. That said, not all Common Core math is new math — many old-school math techniques remain.

Meeting Your Child's Math Needs

I bet you're thinking, "Great! I can't wait to learn new math so I can teach it to my child!" It isn't like you didn't have anything else to do!

Given that you are reading this book, I know you are at least interested in math, or desperate because you are struggling to help your child solve their homework assignments.

The bottom line is that you can do this. You learned old-school math, and you can learn new math. In fact, you are likely to surprise yourself and amaze your friends with what you know.



If your child is struggling today, it's likely because they didn't master the skills in a previous grade level. That problem is easy to solve. This book starts with a review of key math concepts through to fifth grade. You may want to start there. Depending on your child's age and current skills, you may move through that content quickly. The successes your child will experience will give them greater confidence in their knowledge, and you may find that you're able to fill in a few key gaps. In any case, if your child is having trouble at their current grade level, you can simply turn back a few pages to a previous grade level and lay a better foundation. Remember, you paid for the entire book. Use it!

INVESTING IN YOUR CHILD'S FUTURE

Math is important. That's why schools teach math every day in every grade. Kids who do well in math tend to do well in school. Further, kids who do well in school tend to go on to college.

Research has shown that college graduates tend to earn over one million dollars more throughout their career than non-college graduates. That's a one-million-dollar return on your investment of time to help your child succeed in math.



REMEMBER

You may be worried that you are too busy to help your child with math or that you can't learn new math. Relax. You have the right book. Raising kids can be hard. The good news is that teaching math is not. You can do this!

Creating a Math Routine

Transforming your child into a math whiz takes time and effort. Following are a few tips for creating a solid math routine:

- » Plan on spending around 15 minutes a day on math with your child.
- » Try to pick a regular time each day to work with your child to establish consistency.
- » Try to pick a location that is away from other distractions, such as your television or smartphone.



REMEMBER

By establishing a routine, you will find that you can make time, and your child will have the expectation that you will be working together. Knowing that you care about their success is important to your child.

Encouraging Your Child When the Going Gets Tough

Math can be hard, and your child will make mistakes. The key is in how you respond to your child after such errors occur. A positive attitude goes a long way. Be positive about the math problems your child gets right, as well as what they can learn from the ones they get wrong.



TIP

When your child makes a mistake, and they will, make the problem the focus by saying, "This is not correct—let's look at it again," rather than saying, "You got this wrong."

Remember, your goal is to build your child's math confidence and, ideally, their enjoyment of math.



REMEMBER

Have fun! You are setting out on an adventure that will forever change your child's life.

