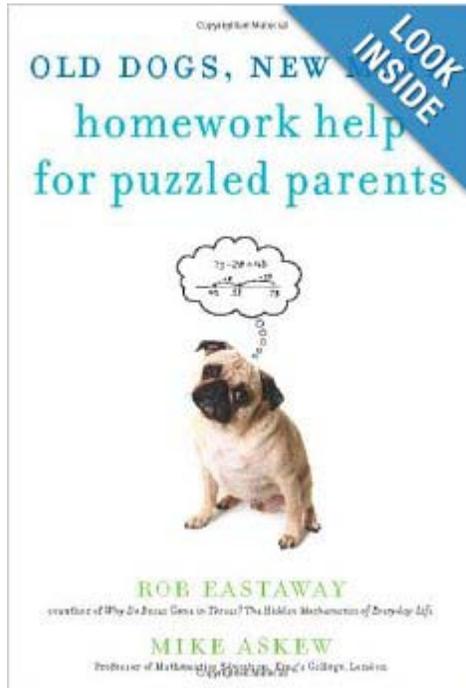


Old Dogs, New Math: Homework Help for Puzzled Parents Paperback

by [Mike Askew PhD](#) (Author) , [Rob Eastaway](#) (Author)



“Can you help me with my math homework?” If, like most parents, this question fills you with a sense of dread (or even panic), then this is the book for you.

So much for the “good old days” when elementary students simply memorized their times tables and struggled through long division. Today, students are expected not just to find the right answer, but also to choose the best method for doing so—and to *explain why it works*.

On top of that, students are learning new strategies—even for basic arithmetic—that look foreign to many parents: What are *open number lines*, *decomposing* and *nets*, and how do you multiply on a grid?

If your attempts to help your child are met with “That’s not how the teacher does it,” then it’s time to take the stress out of math homework. *Old Dogs, New Math* is your guide to:

- Number lines, place value and negative numbers
- Long multiplication and division
- Fractions, percentages and decimals
- Shapes, symmetry and angles
- Data analysis, probability and chance

Complete with sample questions, examples of children’s errors, and over 25 games and activities, *Old Dogs, New Math* will not only demystify math, but also help you and your child discover math all around you—and have fun doing it!

Books: 'Old Dogs, New Math' an aid for parents when it doesn't add up

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There are two kinds of people in the world, and you can apply that cliché to many things in life. People either like the Yankees or they don't ... or lima beans ... or subtitled movies ... or Apple products.

Certainly one of the biggest dividers among the human population is math. You either like math or you don't, though, anecdotally speaking, it seems that the majority of people fall into the latter category.

It shouldn't be this way, says Mike Askew, a professor at Monash University in Australia and co-author of the new book, "Old Dogs, New Math: Homework Help for Puzzled Parents" (The Experiment, \$15.95).

"It is not so much that people don't like math but they don't like the way it was taught," he said in an e-mail interview. "When you ask people to talk about what happened in their math learning, they often refer to the point at which it all started to go wrong for them. Fractions or algebra are typical breakpoints. In the book we work on games and activities that parents and children can work on together that help understanding as well as skill development."

"Old Dogs, New Math" is aimed at math-troubled parents, helping them grasp the complexities of arithmetic in easy ways, and to understand the new ways in which math is taught in the classroom.

Put succinctly: Remember how important it was to "show your work," as math teachers would say? Math Expressions is an extension of just that.

For example, multiply the numbers 32×67 . The old method would mean simply multiplying the two numbers together for an answer of 2,144. Math Expressions, though, requires that students work through the process. One method is to decompose the numbers to 60 plus 7 and 30 plus 2. Then multiply 60 times 30, which equals 1,800. Then multiply 60 and 2 for 120. Then multiply 7 and 30 for 210 followed by 7 and 2 for 14. Add the answers together -- 1,800, 120, 210, and 14 -- for the final total of 2,144.

It's an admittedly long way to reach the same answer, said Susan MacMillan, director of math and gifted education for Toledo (Ohio) Public Schools, who acknowledges that she hears from parents all the time who want to know why schools are making math even more difficult and cumbersome.

The simple answer: It's for the students.

"What we're noticing in fourth and fifth grade is our kids start losing their math abilities," MacMillan said.

In third grade, perhaps a student is asked to learn 20 elements of mathematics. The next year, the student is expected to retain that information and add, say, another 40 new elements on top of it. It's the same for fifth grade and up, all of which can lead to confusion and math anxiety for many students.

"Kids don't understand what they're doing, then all the procedures get mixed up together in their heads. They don't remember, 'Do I add now or add later?'" MacMillan said.

The more cumbersome method, she said, helps to eliminate those issues by reinforcing the full process in an equation.

"They really develop a number sense," MacMillan said. "They start to think like mathematicians. Their thinking reflects their understanding of the concepts and not just rote memorization of the procedures.

"The research on learning math is pretty clear. If you introduce a process or a procedure before the kids are familiar with the concepts behind it, then they don't care to learn the concepts. They just want the shortcut. That's part of the problem ..."

While such a method may seem radical, new and improved ways of doing math certainly aren't new. "When I brought math home my mom would say, 'Well, this is not the way we did it,'" said Mike Shaughnessy, president of the National Council of Teachers of Mathematics. "I don't think this is a new phenomenon at all."

To make the learning process easier for moms and dads as well as their children, Shaughnessy suggests that parents who are intimidated by math have their child explain as best he/she can what it is they are being asked to do and where they are stuck in the problem. Then for the parent and child to work on finding the solution together.

And if a parent doesn't know the answer? That's OK as well.

"At some point it could be OK to say, 'Let's talk to the teacher about this and find out,'" he said.

As for those who cringe at the sight of an equation, Shaughnessy said to convince someone to feel otherwise -- that math isn't something to be afraid of -- will take time and a shift in our collective opinions, as our attitude and disposition toward math are not very good.

The National Council recently started to fight back about that negative cultural attitude, which means targeting the biggest culprit: parents.

"Adults shouldn't really broadcast that they were not good at math," he said. "We shouldn't make that a very good thing."