

Dad decodes math's mumbo jumbo

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When Toronto dad Gerry Dunn tried helping his kids with their math homework, he felt like they were speaking a different language.

They had no idea what he meant by "carry the one" when adding or multiplying. Instead, they said "regroup."

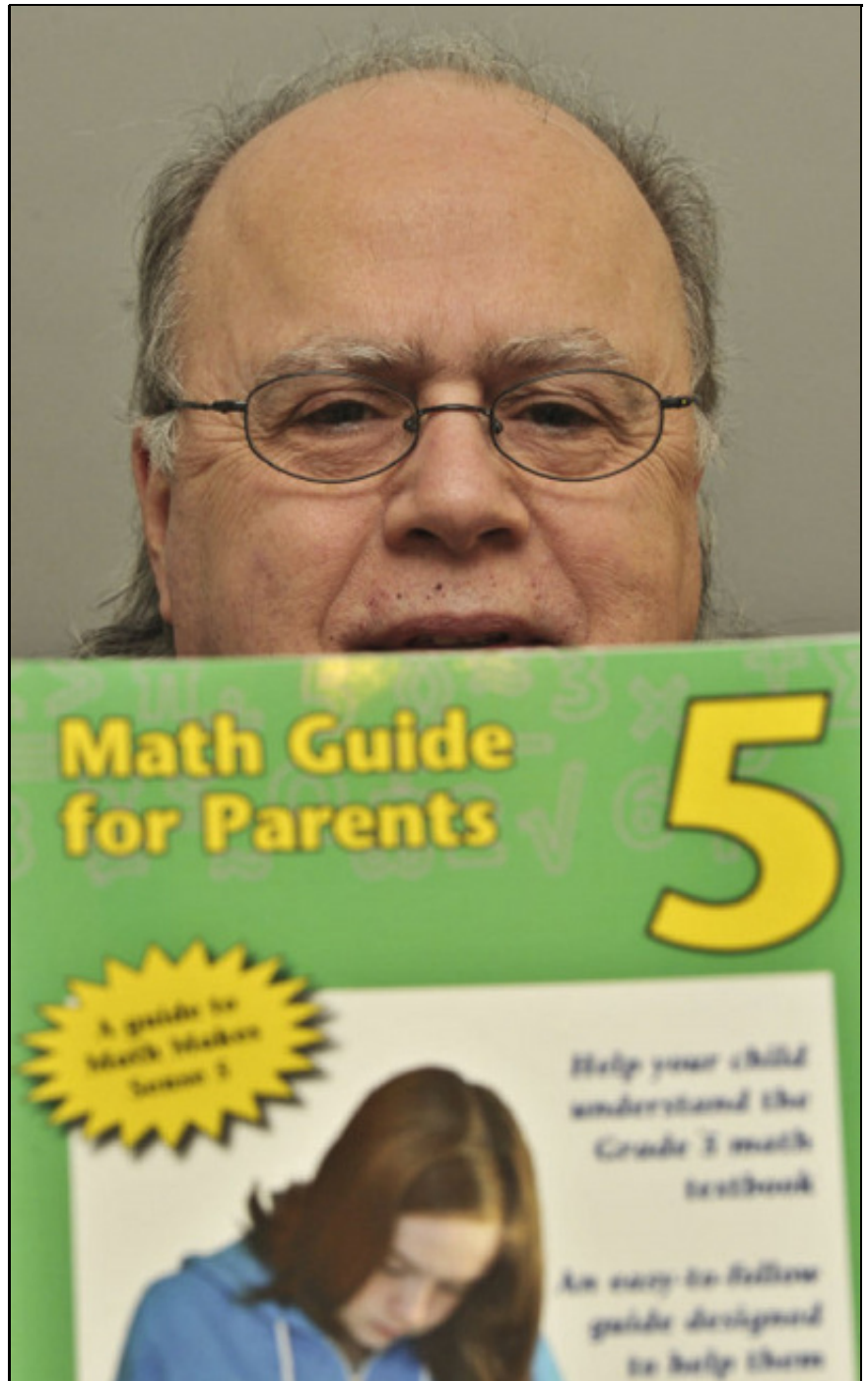
With fractions, they hadn't been taught to find the "lowest common denominator;" it was all about "making equivalent fractions."

In turn, Dunn didn't know "input-output machine" meant a math operation. And "tessellation?" He hadn't a clue.

So the graphic designer decided to decode the math mumbo jumbo in a [guidebook](#) for parents of Grade 5 students across the Toronto District School Board (TDSB).

A sort of Grade 5 Math for (parent) Dummies, the 140-page refresher course for math-rusty grownups defines terms from algorithm to vertex and warns them which methods are now outdated. It walks parents, lesson by lesson, through the textbook *Math Makes Sense 5* by Pearson Publishers.

"These days parents get left out of the picture, but if we want to help our children we need to understand how math is being taught, and there is a gap between



TARA WALTON/TORONTO STAR

Gerry Dunn holds up a copy of the companion guidebook he created to help parents understand their kids' math. The book is meant to accompany the Grade 5 math textbook used by the Toronto District School Board.

the way most of us learned and how math is taught now," said Dunn, whose children are now in Grade 8 and 11.

"My kids would bring home homework on a photocopied page from the textbook with very little description of the terms, so unless you're a teacher, you wouldn't understand," said Dunn.

Norman Rogers taught math at Monarch Park Collegiate for 18 years, and helped with the project because he saw it as a way to defuse some of the math anxiety kids can get from home.

"If it helps parents help kids understand the concepts, that's great, and it may especially help ESL parents (English as a Second Language) with the simplified (English) terms."

TDSB numeracy coordinator Anna Jupp hasn't seen Dunn's book, but welcomed any tool that keeps parents from balking at math they don't recognize. Often the new terms are meant to describe more accurately exactly what is being done, she said.

Here's an example. When you add 25 and 38, you begin by adding the right-hand "ones" column, which makes 13 — which is one group of 10, plus three "ones" left over.

So when we write down the three and put a one over the '10s' column, "we're showing we have another group of 10 to add, which is 'regrouping' — we're not really carrying anything," said Jupp.

She says the adjustment for parents is not unlike when her son texts her "lol."

"I could tell him to spell it out the way we always used to, or I can learn the new language."

Math terms for Parents

- In older math, the term "carry" was used. This has been replaced by 'regroup' to fit the concept of 'place value.'
- They no longer talk about "finding the common denominator;" it's called "making equivalent fractions," which TDSB math chief Anna Jupp said better describes what they're actually doing.
- "Tessellation" means a pattern of identical shapes that cover an area with no gaps or overlaps
- "Input-output machine" is the simple term for a math rule or operation; you put in one number, apply the rule and out comes the answer. "I love this term," said math teacher Norm Rogers, "because it's the beginning of the concept of functions that is important to algebra and calculus.
- In Canada, commas are no longer used to separate digits into groups of three. A space is used in numbers with more than four digits (50 000, 500 000), otherwise there is no space (1000).
- When rounding numbers, the term "friendly" or "nice" is sometimes used to describe a nearby number which is simpler to use for estimating.