

# YOU DO THE MATH, OR CAN YOU?

For some it's a breeze, but for many, math can inspire paralysing fear, writes Caroline Grech

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**PROBLEMS**  
*... with math*

**FIRST OF A TWO-PART  
 SERIES DISCUSSING  
 MATH - PROBLEMS  
 AND SOLUTIONS**

BY CAROLINE GRECH  
 Staff Writer

Statistics, trigonometry, algebra and calculus.

For some, it's a breeze, but for many, math can inspire paralysing fear.

While students are not necessarily failing in large numbers, many are struggling with math.

The problems have not gone unnoticed and students in grades 1 to 10 will be working with a new curriculum this month.

Those in grades 11 and 12 will follow with a new curriculum next fall.

But will a new curriculum address the problems?

Grade 9 and 10 math classes continue to be among the most popular among students repeating high school courses over the summer, according to Jim Orfanakos, co-ordinating principal of continuing education for the York Region District School Board.

This year, 1,388 of 26,710 high school math students failed and took reinforcement classes during the summer.

While that isn't a high proportion of students, the numbers don't account for those who are just scraping by.

In provincewide standard tests, Grade 9 applied math students, in particular, struggled.

Seventy per cent or 30,235 Grade 9 students taking applied math IN 2001-02 were not meeting the provincial standard in the Education Quality Assessment Office tests.

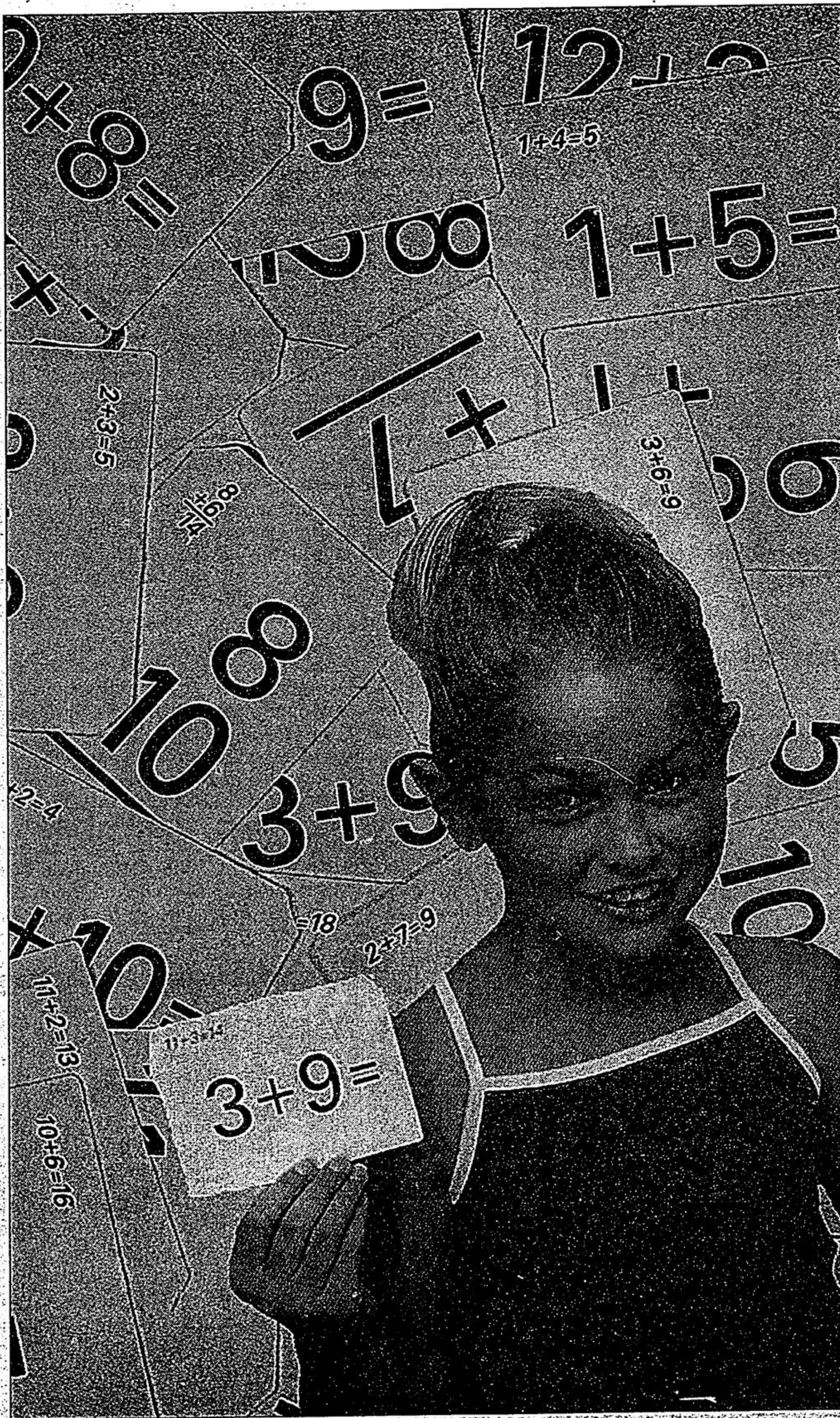
The numbers didn't get any better in 2002-2003 when 72 per cent were not meeting the standard.

In the 2003-2004 school year, numbers improved, but 62 per cent of applied students were still below the standard.

The problems students have with math can't be narrowed down to one specific reason. Everyone from teachers to administrators to parents has an idea.

For Kathryn Stewart, an intermediate/senior mathematical literacy consultant, it's a matter of changing the way society views math.

"It's socially acceptable to not be good at



ILLUSTRATION/SJOERD WITTEVEEN

math," Ms Stewart said. "It's embarrassing to have difficulty reading, but people will freely admit they can't figure out a restaurant bill."

Taking away the scare factor of math will go a long way in having students excel, Ms Stewart said.

"By Grade 3, we want them loving it," she said.

For Gary Reid, a former high school instructor who now teaches math for technology at Seneca College, there are many contributing factors but key among them is

The following is a list of problems York Region math students would encounter during their studies.

Can you solve these problems?

**Q. 1. Grade 1**

- clown wig- 6 cents
- glasses- 8 cents
- beanie cap- 9 cents
- headband- 3 cents
- boomerang- 5 cents
- squirt ring- 2 cents

Kim went to the Silly stuff sale. She took 20 cents. She wanted to buy a clown wig, boomerang and headband. What can Kim buy with the money she has left?

**Q. 2. Grade 5**

These questions are to be figured using mental math.

Q. A theatre has 16 rows of seats. Each row has 24 seats. How many seats are there in the theatre?

**Q. 3. Grade 7**

Q. Paco ate 25 per cent of a 16-slice pizza and placed the rest in the fridge. Santos ate 25 per cent of the leftovers.

- a) How many pieces were left?
- b) What percent of the original pizza remained?

**ANSWERS:**

- 1. She will have 6 cents left to buy a clown wig, boomerang, two headbands or three squirt rings.
- 2. 384
- 3. a) 9 b) 56 per cent of the pizza is left.

the lack of communication or continuity between elementary, high school and post-secondary schools.

"Fundamentally, there's so many gaps in kids' understanding and learning and you can still get a passing grade and not fully understand the concepts," Mr. Reid explained.

It's so bad, Mr. Reid said, he has to treat his college students as if they were in high school or they won't do their assignments.

While unable to put his finger on a single root cause, he believes some of the basics, such as multiplication tables, are being sacrificed in the name of making school fun.

"The basics are not being taught and because it is not there through high school, we go through gyrations to get students to understand at college," Mr. Reid said.

Mr. Reid also pointed to the shortened high school curriculum.

"Kids would be better off to learn the subject gradually and, right now, we're trying to cram everything in," he added.

Unionville high school teacher Louis Lim agreed the old curriculum gave too much to learn in too little time.

While many may disagree on the approach teachers should take with math, they agree change is needed.

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