

# leading lights



**Nicola Chan** talks to maths mastermind and IGCSE computer science top scorer Garris Choi about why he finds these subjects so fascinating, and for tips on how to ace exams

**T**he fact that mathematical and computer science problems always have absolute answers is one of the reasons Garris Choi is so fascinated with these two subjects.

The 16-year-old West Island School whizz-kid received two Outstanding Cambridge Awards for being the world's top scorer in international maths and Hong Kong's number one in computer science in the IGCSE examinations this year.

The Year 12 student started developing an interest in maths in Year Seven, when he came across his first investigation task in school.

He enjoyed the process of exploring a question using trial and error just as much as he enjoyed the satisfaction he gained from finding the solution to a problem, he said.

Garris added that he loved how mathematical theories always stemmed from the fundamental principles of logic. He argued that this is what makes maths "one of the few things you can be certain of", as opposed to other

subjects like English and art, which are subject to constant debate and change.

What Garris likes about computer science is how practical and useful the subject can be. He also enjoys learning the language of coding.

"It is literally learning a new language. Like any other language, learning a programming language involves learning its syntax, the specific rules, and you need a lot of practice to become fluent in applying these rules," he said.

Since coding, like maths, involves a lot of problem solving, Garris said the discipline allows him to think outside the box and be more creative when tackling problems.

"There are often multiple solutions to a problem," he said, "whereas with science subjects like biology, answers are pretty much set in stone."

When asked to point out the challenges of this year's exam, Garris said the maths questions in the investigation paper were the most unexpected.

"The paper requires you to come up with a general formula for patterns, and challenges you to apply maths skills in a more creative way," he says.

He added that the problem-solving paper of the computer science exam, which tests students' programming knowledge, was unusually complicated when compared to previous years.

However, he was able to approach the problems in a calm and systematic manner by breaking them up into smaller, more manageable parts.

Garris advised students hoping to score well in international mathematics to get used to recognising the different types of questions, and know which method you should use to solve them.

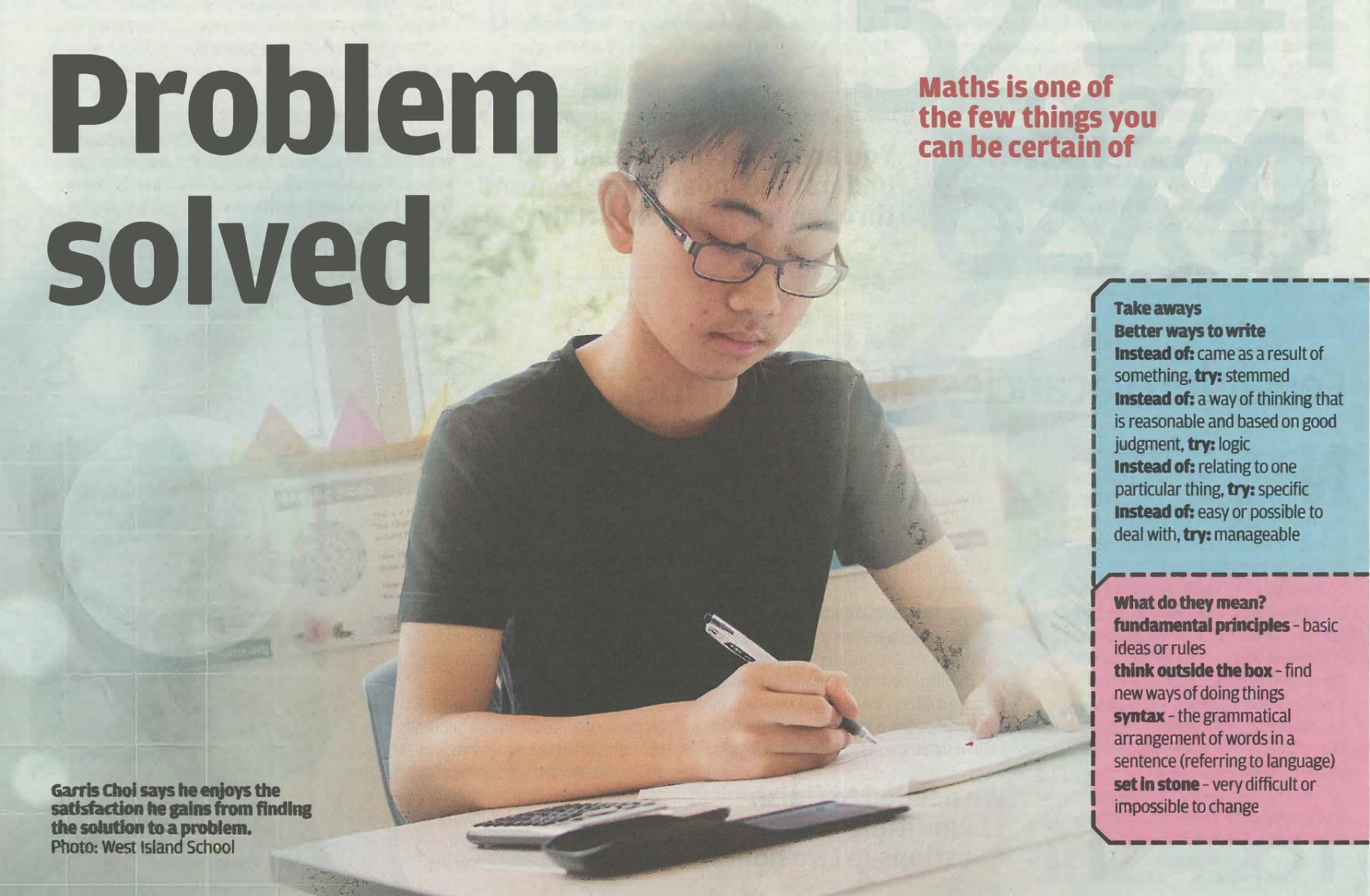
He says the best way to practise this would be to do a lot of past papers, adding it might also help to watch videos on YouTube if you're struggling with certain types of problems.

"For the theory part of computer science, making notes based on marking schemes helped me to learn the keywords examiners look for in your answers," he said.

Lastly, Garris urged students to stay organised. Especially if you who have several exams close together, he suggests setting up a revision timetable and revising in school to help you stay focused on studying.

# Problem solved

Maths is one of the few things you can be certain of



Garris Choi says he enjoys the satisfaction he gains from finding the solution to a problem.  
Photo: West Island School

**Take aways**  
**Better ways to write**  
**Instead of:** came as a result of something, **try:** stemmed  
**Instead of:** a way of thinking that is reasonable and based on good judgment, **try:** logic  
**Instead of:** relating to one particular thing, **try:** specific  
**Instead of:** easy or possible to deal with, **try:** manageable

**What do they mean?**  
**fundamental principles** - basic ideas or rules  
**think outside the box** - find new ways of doing things  
**syntax** - the grammatical arrangement of words in a sentence (referring to language)  
**set in stone** - very difficult or impossible to change