**Prompt 6: Think about an academic subject that inspires you. Describe how you have furthered this interest inside and/or outside of the classroom.**

Maths! That’s the first thing that pops into my head whenever I’m asked for a favourite subject. Most people won’t agree with me but one thing I like about maths is that there is always a right answer. To put it simply, maths is logic: true or false, yes or no.

Mathematical concepts have a kind of hierarchy; for example, you can't study calculus without being familiar with the fundamental algebraic functions. All of the mathematical ideas, whether they are new or old, that are being taught to us are interconnected.

Further enhancing my maths knowledge, I participated in the American Mathematics Olympiad. When I took the practice test, I was blown away; I couldn't even solve a single question. Instead of merely inputting equations and solving them, it required me to think logically and approach the questions strategically. At this point, I realised that maths isn’t about memorising but understanding the concepts. I need to understand the logic behind each question, be familiar with the principles of mathematical formulas and know when to use them. After all, this olympiad is all about proving why one plus one equals two and how this logic could be applied to other questions.

Looking back at all the concepts that I’ve learnt, I started to question all the formulas that were given and tried to find my way to comprehend them. The adrenaline surge I had each time I was successful in solving a question was unmatched. After a few weeks of doing this, I was able to receive a silver medal in that competition.

Needless to say, I began to involve myself in other competitions, starting with the maths week held at my school, followed by the Singapore and Asian Maths Olympiad, and the SINGA maths Global Finals.

These competitions taught me that there’s more than one approach to arrive at the correct answer. Everything relies on the approach and the methods you go with. Hence, I became interested in data science, learning how data might be analysed from various angles.

We live in a world filled with numbers, equations, and algorithms. Thus, the laws of mathematics are everywhere. I think that maths problems teach us analytical skills like data analysis and critical thinking that will help us understand the world in a way that no other subjects can.