“All is number,” says Pythagoras.

If we discard the idealistic part of it, we will find its truth in life itself. To me, life is also a mathematical function, simple at first glance but full of possibilities in hindsight. Since childhood, I’ve loved solving intriguing math problems, a hobby I obtained from playing math puzzles. Over time, mathematical thinking has become an indispensable part of who I am.

Simply consider the function: y = a^x + b.

Assume “a” is greater than 1.

The graph will always pass the point (0,1).

This precision, a sense that outcomes are predetermined, may have a drag on people, making them content; they give up on looking for new a different possibility because they think they know the outcome.

This succinct, elegant mathematical function has inspired me to understand myself and the world.

**1. “a” is who I was**

“a” is a constant. It’s the unwavering part of my identity.

Ten chickens. Six ducks. A groaning tricycle. A patch of paddy field. A TV with fine channels. A set of Mahjong. A series of Sudoku books.

Growing up, this is my world, and where my curiosity towards math originated.

Sometimes I would sit beside my sister and watch her solve her geometry problems. It didn’t bother me whether I actually understood anything, but the circles one upon another seemed intriguing.

I didn’t think about those things, not even math. But I was glad that I finished that pile of Sudoku books before I went to school in town.

All sorts of puzzles and card games remained to be the most interesting thing for my leisure time, as I gradually moved with my family all the way to Suzhou city, and afterwards going independently to schools in other cities and abroad. On this journey, I got access to more books on deeper math topics. The concept of infinity excited me at our first encounter; and then comes Group theory, graph theory, number theory… all those mysterious symbols and graphs. There was a voice of eager and determination that encourages me to understand them fully one day.

The world of math has become my temple, my mosque, my church, my synagogue; it’s where I feel the most peaceful, where I find friends of the same enthusiasm, where I go for my enjoyment, and where I go to think for days, and it’s also the world that challenges as well as entertains me more than any other I know.

**2. “x” is what I see, do, and feel …**

In my world, “x” is a variable, always larger than 1.

I traveled a lot. For ten years my parents cut our daily expenses to give me tours around the world. Speaking little English, riding a motorcycle, sleeping in tents, I traveled through New Zealand, Iceland, Sri Lanka, Kenya and numerous wonderlands.

United World College has captivated me as much as the novelties on my journeys. In UWC, I met people from all over the world, some I’ve been to, some I’ve never heard of.

I learned from my Afghan roommate how their country is suffering from upheavals; how she’d watched her friends dying, and how fortunate she feels about being able to study here. I also learned about different religions. I greeted all the vegetarians around me. I joined forces with the LGBTQ movement.

Coming to Pearson, my world becomes bigger than ever.

Living at the ocean, the mystery of the ocean arouses my intellectual curiosity for marine science. By examining and monitoring the marine species in our local environment, from Coccolithophores to Canada goose, I’ve become aware of the real problem our generation is facing: marine plastics, ocean acidification, biodiversity loss… They become so close and so real to me when I witness, with my own eyes, the entangled sea lions and fishing lines at the bottom of the ocean.

Being the only non-white in the diving team, I manage to endure the freezing ocean water in order to monitor the underwater biodiversity and help with ocean cleanup.

From my departure since childhood, now I am coming back again to the bosom of nature.

Every weekend I run along the shoreline, through the forests, up to the hills, wild cornfield, under the sun, in the rain, during sunrise and sunset.

By living on a 0.5km^2 island for a week without freshwater and electricity, I woke up everyday with the roar of California sea lions, and watch the travel of humpbacks on the lighthouse. Without proper toilets or bed, I came to a real understanding of nature and wilderness instead of the romanticized image that is so prevailing in modern society.

It reminds me of the fire woods and the smoke curling up from my childhood; the little wooden stool in our backyard and the chickens pecking around.

It reminds me of sunsets and starry nights I have seen from all over the world; it reminds me of the light passing the Oculus of the Pantheon.

It is wild. Crude. But it’s full of power, the power from its purity and its origin.

Just like art in the Renaissance, and math for its own sake.

**3. With “b,” “y” is who I will become.**

a^x is who I am, albeit I am looking for such a “b” that could help me go further in my journey of math.

Ross can be such a “b.”

在你对数学探索的这个journey中，你也发现了各种数学存在的形态。I start to see everything in the world as math: all information and knowledge can be stored as numbers in computers; all tangible as well as higher dimensional things can be described using functions; it is such a beautiful language that helps me to interpret myself and the surrounding world: Feeling hot can be expressed by regression (in sports), Bayes’ formula can be used for testing cancer treatment’s effectiveness (in medicine), wise decisions can be made based on the expectation (in lottery), and numbers can show the faults of an electoral system (in politics). If I want to figure out what Quantum mechanics is, the easiest way for me is to draw inspirations from uncertainty, wave function collapse, Schrodinger equation, and Quantum Bayesian model.

It is such an opportunity for me to have an immersive journey, just like the ones I had back in childhood solving Sodoku and on a wild island monitoring sea lions. But this time, I want a summer for math only. With no distraction from any possible sources, Ross provides me such a mathematical haven that I could safely and joyfully enjoy in. By investigating into number theory — one of the purest and most fundamental areas in math — I could boost my understanding of math from its most basic level to its development over the history, and get a glimpse into the advancement of mathematics at its explosive velocity.

If I would have this precious opportunity, I believe Ross will become such an indispensable part of me, not only for my pursuit for math, but also my social network, the shaping of my personality and future.