Morning Talk (20 Jan 2025 with M2)
4C Chris Ye
4C Kim Yu

C+K: Good morning Principal, Vice-principals, Teachers and fellow schoolmates!

C: I am Chris Ye Chun Tang from class 4C.

K: I am Kim Yu Kim Kiu from class 4C too. We are students studying M2.

C: Hi Kim! Do you still remember **the Mathematics course** held by the Chinese University of Hong Kong?

K: Yes sure Chris! That's an **amazing experience** we have got this year. Let's share with all of you today!

C: I am **excited** to share some **great insights** we have got from our Maths course at CUHK.

K: yes true! This is a course focusing on **cryptography and game theory**. These two areas, while seemingly different, are actually **well connected.**

C: These are valuable tools, applicable far beyond the area of Maths. So Kim, what is cryptography?

K: **Cryptography is the science of secure communication.** We have moved beyond simple substitution ciphers to complex algorithms like RSA, protecting our data in the digital age.

C: The underlying maths, particularly number theory, is what makes these systems secure. It's a constant battle of wits. This constant push and pull is an **exciting aspect** of the field.

K: Now, let me tell you something about **game theory**. This field explores strategic interactions, where the outcome depends on the choices of multiple players. The Prisoner's Dilemma, a classic example, shows how rational self-interest can lead to suboptimal results for everyone involved.

C: that's fun! Understanding game theory can help us navigate complex situations, from business deals to understanding international relations.

K: The connection between cryptography and game theory might not be so obvious, but it's **important.** Designing secure cryptographic systems often involves the strategic actions of potential attackers. It's a game, in a sense, where the cryptographer tries to create a system **that's too difficult** for the attacker to break.

C: The Maths course we took at CUHK not only well equipped us with a strong Maths foundation, but also **strengthen** our analytical and problem-solving skills.

K: Hope that more schoolmates can have a chance to try out this course in the future!

C+K: that's the end of our sharing. Thank you very much!