An Introduction to Cryptology and Modular Arithmetic

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ABSTRACT: Cryptology, the study of codes and ciphers used to create secret writings, is a tool applied millions of times everyday. When you purchase an item on ebay or transfer money through paypal, cryptology is working in the background to keep your personal information secure. Many of the cryptographic algorithms used in these processes use theoretical mathematics. In this talk, we shall give an overview of how cryptology has developed over the years, and how modular arithmetic can be used to understand many cryptographic algorithms, both classical and modern.