Cryptography Using Dates and Prime Numbers

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Over the course of history, different ways of hiding messages have been created, and this investigation was done to achieve that using RSA and dates. The way that this encryption system works is quite simple: a special formula combining 4 variables has been created. The first 2 variables are randomly generated prime numbers assigned to the current month and the current week, which are multiplied together. The resulting composite number is then multiplied by another prime number, which has been chosen from a large pool of numbers assigned to the letter being encrypted. The current day of the month is then added or subtracted from the product of the second multiplication, depending if the current year is even or odd. The final number is the number replacing the original letter. This system uses all these elements to provide a secure messaging method in an easier-to-use way. Due to the addition of a time factor, the system's security is boosted as each message is only valid for a day. The system was designed as a prototype from which it may be modified to alter its security or user-friendliness, and from which many other cryptographic systems can branch off from, all using the same principle set by this one: simple yet secure.

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