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Lavinia Ciungu. *A Variation of the ElGamal Encryption Method.* Preliminary report.

In cryptography, the discrete log problem is a well-known encryption tool. It is useful due to the difficulty, given the values of a, y , and n in the equation $a^x = y \pmod n$, of solving for x . We try to take this problem one step further and examine the substitution by the integer part of the exponential $\pmod{26}$. For example: the letter f would encrypt to $[e^5] = 18 \pmod{26}$ which corresponds to Q . This is hypothesized to increase the difficulty by not encrypting directly to integer values. (Received September 21, 2011)