## Insecure Keith - Alan Yan

The only difficulty in this problem is figuring out the encryption scheme. Translating  $K \to 1$ ,  $T \to 0$  we are given a vector of bytes and the number 283 in binary is 100011011. This is a well-known for being associated with the irreducible polynomial  $x^8 + x^4 + x^3 + x + 1$  in  $GF(2^8)$ . Hence, the encryption scheme is <u>AES</u> where the key is "*Y ou are the key*!". We can decrypt it now to get the flag "HOMEOMORPHISMS!1"



<sup>&</sup>lt;sup>1</sup> Taken from <u>wikipedia</u>