CS 428 - Applied Cryptography

Homework Module 1

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1. Which of the following produces the result of 101101?
   1. 111111 AND 111101
   2. 100101 XOR 001000
   3. 001000 OR 100101
   4. 000000 OR 010010
2. Why does the Sufficient Key Space Principle exist?
   1. It exists as a way to measure if the key size for a specific encryption algorithm is large enough to prevent any sort of brute force or exhaustive search attack.
3. What problems does the mono-alphabetic substitution cipher have?
   1. The substituted letters would present the same English language letter distribution, which can be back tracked to determine the actually letters used, and leading to the decryption of the message.