|  |  |
| --- | --- |
| Plaintext 1 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 2 | 0,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 3 | 1,1,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 4 | 1,0,0,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 5 | 1,0,1,1, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 6 | 1,0,1,0, 1,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 7 | 1,0,1,0, 0,0,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 8 | 1,0,1,0, 0,1,1,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 9 | 1,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 10 | 1,0,1,0, 0,1,0,0, 0,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 11 | 1,0,1,0, 0,1,0,0, 1,1,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 12 | 1,0,1,0, 0,1,0,0, 1,0,0,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 13 | 1,0,1,0, 0,1,0,0, 1,0,1,1, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 14 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 1,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 15 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,0,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 16 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,1,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 17 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,0, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 18 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 19 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,1,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 20 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,0,0, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 21 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,1, 0,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 22 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 1,1,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 23 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,0,0,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 24 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,1,1, 1,0,1,0, 0,1,0,0, |
| Plaintext 25 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,0, |
| Plaintext 26 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,0, |
| Plaintext 27 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,1,1,0, 0,1,0,0, |
| Plaintext 28 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,0,0, 0,1,0,0, |
| Plaintext 29 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,1, 0,1,0,0, |
| Plaintext 30 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 1,1,0,0, |
| Plaintext 31 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,0,0,0, |
| Plaintext 32 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,1,0, |
| Plaintext 33 | 1,0,1,0, 0,1,0,0, 1,0,1,0, 0,1,0,1, 0,0,1,0, 0,1,0,1, 1,0,1,0, 0,1,0,1, |

**Avalanche Effect**

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| --- | --- |
| Ciphertext 1 | 0101 | 1101 | 1011 | 0100 |0111 | 1101 | 1111 | 1011 | |
| Ciphertext 2 | 0111 | 1101 | 0010 | 1010 |1001 | 1011 | 0110 | 0001 | |
| Ciphertext 3 | 0100 | 0011 | 0011 | 0110 |0101 | 1100 | 1101 | 0011 | |
| Ciphertext 4 | 0100 | 1011 | 0001 | 1010 |0000 | 1110 | 1000 | 0101 | |
| Ciphertext 5 | 0111 | 1000 | 1101 | 0110 |0101 | 1011 | 1011 | 1101 | |
| Ciphertext 6 | 0010 | 0001 | 0010 | 0011 |1010 | 0100 | 1001 | 1010 | |
| Ciphertext 7 | 0101 | 0111 | 0011 | 0100 |1010 | 0000 | 1100 | 1110 | |
| Ciphertext 8 | 1010 | 0010 | 0011 | 1100 |0110 | 1011 | 0110 | 1001 | |
| Ciphertext 9 | 1001 | 1100 | 1011 | 0001 |1011 | 1010 | 1001 | 1101 | |
| Ciphertext 10 | 1011 | 1000 | 1101 | 0111 |0001 | 1100 | 0011 | 1010 | |
| Ciphertext 11 | 1101 | 1111 | 0011 | 0010 |0100 | 0001 | 0001 | 1010 | |
| Ciphertext 12 | 0001 | 1000 | 1101 | 0001 |1010 | 1101 | 1001 | 0010 | |
| Ciphertext 13 | 1010 | 1010 | 0101 | 1001 |1101 | 0111 | 1001 | 1111 | |
| Ciphertext 14 | 1011 | 1100 | 0001 | 1010 |1111 | 1000 | 0111 | 0111 | |
| Ciphertext 15 | 1100 | 0000 | 0100 | 1111 | 0100 | 1001 | 1101 | 1010 | |
| Ciphertext 16 | 0110 | 0111 | 0001 | 0101 | 1111 | 1101 | 0100 | 0010 | |
| Ciphertext 17 | 1101 | 1011 | 0001 | 1110 | 0011 | 1000 | 0100 | 0101 | |
| Ciphertext 18 | 1111 | 0011 | 0100 | 0010 | 1100 | 1010 | 1101 | 0111 | |
| Ciphertext 19 | 1100 | 0100 | 0110 | 0100 | 0000 | 1111 | 0000 | 0001 | |
| Ciphertext 20 | 1100 | 0100 | 0110 | 0100 | 0000 | 1111 | 0000 | 0001 | |
| Ciphertext 21 | 0001 | 0110 | 1011 | 0011 | 0110 | 1011 | 0110 | 0111 | |
| Ciphertext 22 | 0010 | 0010 | 0110 | 1110 | 0101 | 0100 | 0100 | 0101 | |
| Ciphertext 23 | 0101 | 1010 | 0011 | 0100 | 0000 | 1001 | 1101 | 1001 | |
| Ciphertext 24 | 1110 | 0011 | 1001 | 0000 | 0101 | 1110 | 0001 | 1110 | |
| Ciphertext 25 | 0001 | 1101 | 1101 | 1001 | 1110 | 0111 | 1000 | 1010 | |
| Ciphertext 26 | 0101 | 1100 | 1010 | 1001 | 1000 | 1011 | 1111 | 1100 | |
| Ciphertext 27 | 1111 | 0000 | 0000 | 1001 | 0101 | 0010 | 0000 | 0001 | |
| Ciphertext 28 | 0110 | 0010 | 1000 | 1001 | 1111 | 0100 | 1110 | 1100 | |
| Ciphertext 29 | 0001 | 1110 | 1000 | 0010 | 0001 | 0001 | 0011 | 0000 | |
| Ciphertext 30 | 1111 | 0110 | 0011 | 1001 | 1011 | 1100 | 1000 | 0100 | |
| Ciphertext 31 | 1101 | 1010 | 1100 | 0001 | 1010 | 0111 | 1010 | 0000 | |
| Ciphertext 32 | 0100 | 1001 | 1101 | 0101 | 0101 | 0101 | 0101 | 0010 | |
| Ciphertext 33 | 0011 | 1101 | 0010 | 0110 | 0010 | 1010 | 0111 | 0110 | |