

## Assignment #3 Answer Sheet

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Completed in Java JDK 16, using IntelliJ IDEA 2021.

Program files located in src/Main.java

1.

**Input:** abcdefghi jklmnopqrstuvwxyz  
**Output:** Q TJ

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**Input:** the birthday attack can be performed for any hash functions  
including sha three  
**Output:** ISCWK

2.

**Input:** the birthday attack can be performed for any hash functions  
including sha three  
**Secret Key:** UDKGNEUDHSKEUFG  
**Output:** OPXUS

3.

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**Plaintext 1:** AAAAAAAAAAAAAAAAAAAAAAAAAAAAAJ  
**Plaintext 2:** AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
**Hash value:** AAAAA  
**Number of plaintexts:** 9