

I worked with my assigned partner for this extension.

We are not quite sure which of the two methods for finding the key length we found the easiest. The first, being brute forcing all possible key lengths and then comparing the scores of these lengths with one another found in Q1, was initially quite difficult as we were not as confident in what we were doing. However, doing the extension following the extremely difficult homophonic cipher may have warped our view on the difficulty of implementing the Kasiski method for finding the key length. We found this implementation to be not too difficult compared to the homophonic cipher; however, we still found the initial concept and understanding of how this method works to be difficult.

We first calculated the most frequent trigrams in the ciphertext, and then the distance between each of the most popular individual trigrams. The most popular distances then would represent different possible keylengths, and with incrementing how many trigrams were present the more confident we are in concluding that the most frequent distance is the final key length of the trigram.

It seems that this secondary Kasiski method of finding the key length is more applicable to more scenarios, and this method seems like it can be used with a wider range of texts as well.