Encode/Decode Affine: Programming Project CMSC 456
Sample Inputs/Outputs and Testing Instructions

1. If you are using $\{a = 0, ..., z = 25\}$

   (a) Sample unencrypted text:

   ASAMPLETEXTTOBEENCODED

   (b) Corresponding encrypted text:

   IUIQFLCZCTZZANCCVSAXCX

2. If you are using $\{a = 1, ..., z = 26\}$

   (a) Sample unencrypted text:

   ASAMPLETEXTTOBEENCODED

   (b) Corresponding encrypted text:

   MYMUJPGDGXDDERGGZWEBGB

Save the examples in text files; in the sample commands below, they are saved in files named encrypted.txt and unencrypted.txt. To test your code, move the sample text files to the same directory as your code, navigate to that directory, and use the following commands (which should work in either a unix shell or in Windows command prompt, NOT powershell which may be your vscode default):

1. To test encode:

   ```
   python3 EA.py 5 8 < unencrypted.txt > encrypted.txt
   ```

   and see that your program's output encrypted.txt exactly matches the given one (case-insensitive).

2. To test decode:

```
python3 DA.py 5 8 < encrypted.txt > unencrypted.txt
```

and see that your program's output unencrypted.txt exactly matches the given one (case-insensitive).

You may need to modify the filename in these commands (EA.py or DA.py) to whatever you have named yours. These examples are in Python, so if you're testing another language, change "python3" to the appropriate command ("javac" for Java, "ruby" for Ruby, "a.out" for C and C++, etc).

This sample is NOT exhaustive. I would recommend modifying the input to your program (modify unencrypted.txt if you are testing EA and encrypted.txt if you are testing DA) by adding whatever your program may face, which could be newlines, special characters, numbers, spaces, tabs, etc. Your output should not include these characters you add to the input, unless you add more letters.