Brute Force Attack

Part 1. Decode a Caesar Shift

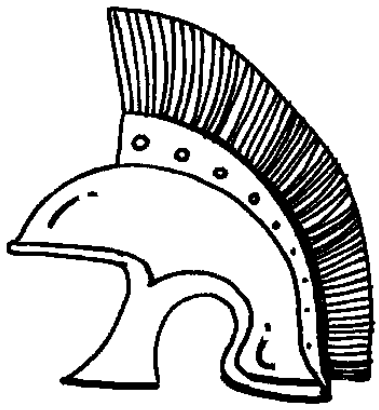
This code is does a one letter Caesar Shift.

```
public class Caesar
{

    public static void main (String[] args)
    {
        new Caesar ();
    }

    public Caesar ()
    {
        String shift1 = "bcdefghijklmnopqrstuvwxyza ";
        String alpha = "abcdefghijklmnopqrstuvwxyz ";

        String plainText = IO.inputString ("Enter the line to encrypt: ");
        plainText = plainText.toLowerCase ();
        String cipherText = "";
        for (int i = 0 ; i < plainText.length () ; i++)
            cipherText += shift1.charAt (alpha.indexOf (plainText.charAt (i)));
        System.out.println (cipherText);
    }
}
```

Run it and grab the line of encrypted text from the output.

In a new program, that you create yourself, decrypt the message.

When this is complete, this is worth a check mark.



Part 2: Print all 26 Caesar Keys

```
String alpha =  "abcdefghijklmnopqrstuvwxyz ";
```

Your task:

- Print out all 26 possible Caesar Shift Keys on the screen.
- The first appears above.
- It is possible to use string functions to adapt it by moving the first character to the end of the screen.
- Once that is working, loop it 26 times.

When this is complete, this is also worth a check mark.

Part 3: Put the two together

Your task:

- In Part 2, you printed out all 26 Caesar Keys.
- In Part 1, you decrypted a Caesar shift.
- In this program, you will put the two together to create a brute force attack on the Caesar shift.
- Use a loop to make this happen!
- Specifically, decrypt the message using all 26 Caesar keys and print it each version on the screen.
- (At that point, a human – or spell checking program - would be able to pick out the right message!)

When this is complete, this is also worth a check mark.