THE REAL VIGENERE

Vigenere codes combine in a kind-of crazy way. The same way that Caesar shifts don't combine very well, sometimes combining Vigenere codes isn't helpful. But, unlike Caesar, there are times when Vigenere codes can be stacked to very great effect!

For each set of codes below, write the "net-effect" code to the right.

PARTS: **COMBINED:**

| + 14 Caesar Shift
+ 8 Caesar Shift | ➔ | |

| + 19 Caesar Shift
+ 10 Caesar Shift
+ 5 Caesar Shift | ➔ | |

| + 20 Caesar Shift
+ 19 Caesar Shift
+18 Caesar Shift
…
+1 Caesar Shift | ➔ | |

| Vigenere with cipher "CODE"
+3 Caesar Shift | ➔ | |

| Vigenere with cipher "NICE"
Vigenere with cipher "CODE" | ➔ | |

| Vigenere with cipher "BAD"
Vigenere with cipher "CODE" | ➔ | |

| Vigenere with cipher "NICE"
Vigenere with cipher "PASSWORD" | ➔ | |

| Vigenere with cipher "BAD"
Vigenere with cipher "PASSWORD" | ➔ | |

| Vigenere with cipher "CAESAR"
Vigenere with Cipher "PASSWORD" | ➔ | |

| Vigenere with cipher "VIGENERE"
Vigenere with cipher "PASSWORD" | ➔ | |

| Vigenere with cipher "NICE"
Vigenere with cipher "CAESAR" | ➔ | |

For these last four, you **don't need to calculate the cipher, just figure out how long each will be:**

Vigenere with cipher "THISISAVERYLONGCIPHER" Vigenere with cipher "BAD"	➜	The final cipher will be _____ letters long.

Vigenere with cipher "THISISAVERYLONGCIPHER" Vigenere with cipher "NICE"	➜	The final cipher will be _____ letters long.

Vigenere with cipher "TOOLONG" Vigenere with cipher "TOO" Vigenere with cipher "LONG"	➜	The final cipher will be _____ letters long.

Vigenere with cipher "THISISAVERYLONGCIPHER" Vigenere with cipher "BAD" Vigenere with cipher "NICE" Vigenere with cipher "CAESAR"	➜	The final cipher will be _____ letters long.

EXTRA SPICY CHALLENGES

1) If you have 5 letters to use altogether among your layered ciphers, what ciphers would you make?

2) If you have 10 letters to use altogether among your layered ciphers, what ciphers would you make?

3) If you have 20 letters to use altogether among your layered ciphers, what ciphers would you make?