Question 1

Encoding $LETSSAILFORTHESPANISHMAIN$ with key $PIECESOFEIGHT$ gave

<div align="center">

AMXUWSWQJWXAATATCRAGMQIOU

</div>

Question 2

Decoding $ZVTVKGVBLNWYJVCLBOOHSSKFIGWYOEDNZ$ with key $GOLDCOINS$ gave

<div align="center">

THISISNOTHINGTODOWITHPIRATESATALL

</div>

Question 3

Using $C1$, $C2$, and $C3$, the following M was found

```
ASSOONASWESTARTEDPROGRAMMINGWEFOUNDTOOURSURPRISETHATIT
WASNTASEASYTOGETPROGRAMSRIGHTASWEHADTHOUGHTDEBUGGINGHAD
TOBEDISCOVEREDICANREMEMBERTHEEXACTINSTANTWHENIREALIZED
THATALARGEPARTOFMYLIFEFROMTHENONWASGOINGTOBESPENTIN
FINDINGMISTAKESINMYOWNPROGRAMSMAURICEWILKESDISCOVERSDEBUGGING
```