Introduction to mathematical cryptography
Homework problems
Week 1

1. The cipher

   ```
   FTQRG ZPMYQ ZFMXF TQADQ YARMX SQNDM EFMFQ EFTMF
   FTQOA YBXQJ RUQXP UEMXS QNDMU OMXXK OXAEQ P
   ```

   is encrypted by the Caesar cipher. Decrypt it.

2. Using the euclidean algorithm, compute gcd(140251, 173611). Also, write the greatest common divisor as the integer combination of 140251 and 173611.

Note: Please, provide complete arguments everywhere, and explain how you arrived at your answer/solution. Giving the result without explanation leads to score deduction.