## 作業二 繳交日期 109/03/27(五) 13:10

1. (a) Find integers s and t such that 13 s + 1251 t = 1 (b) Find  $13^{-1} \pmod{1251}$ 

- 2. We have proved in class that if gcd(a, b) = d, there exist integers x, y such that  $d = a \cdot x + b \cdot y$ , show that gcd(x, y) = 1
- 3. Solve x's that satisfy the following system of congruence equations:

 $\begin{cases} 13 \ x \equiv 4 \ (mod \ 93) \\ 15 \ x \equiv 25 \ (mod \ 50) \end{cases}$