## 2003 Paper 1 Question 2

## Discrete Mathematics

(a) Show that the highest common factor of 798 and 567 is 21. [2 marks]

(b) Find all pairs of integers (x, y) with 798x + 567y = 63. [4 marks]

(c) Find all integer solutions to  $567x = 42 \pmod{798}$ . [4 marks]