

M360 Mathematics of Information Security

practice exam 9/16/05

not graded!

Exercise # 1 (0 points)

Decipher the following affine ciphertext, using that the plaintext starts with “y” and ends with “e”

cspkmtkds

Exercise # 2 (0 points)

Compute the inverse of the function

$$y = 31x + 45 \pmod{57}.$$

Exercise # 3 (0 points)

Compute the greatest common divisor of $a = 623$ and $b = 434$ and express it in the form $sa + tb$ with integers s and t .