

CRYPTOGRAPHY HANDOUT 08

ESCAPE ROOM REFERENCE

1. LETTER AND NUMBER CORRESPONDENCES

a	b	c	d	e	f	g	h	i	j	k	l	m
0	1	2	3	4	5	6	7	8	9	10	11	12
n	o	p	q	r	s	t	u	v	w	x	y	z
13	14	15	16	17	18	19	20	21	22	23	24	25

2. INVERSES MOD 26

Note: not all numbers have inverses mod 26.

Number	Inverse
1	1
3	9
5	21
7	15
9	3
11	19
15	7
17	23
19	11
21	5
23	17
25	25

3. INVERSE OF A 2×2 MATRIX

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix}^{-1} = \frac{1}{ad - bc} \begin{pmatrix} d & -b \\ -c & a \end{pmatrix}$$