

DigiPen login: _____

a	b	c	d	e	f	g	h		i	j	k	l	m	n	o	p		q	r	s	t	u	v	w	x		y	z
0	1	2	3	4	5	6	7		0	1	2	3	4	5	6	7		0	1	2	3	4	5	6	7		0	1

1. Insert characters 'h', 'r', 'm', 'x', 'y', 'i' (in this order) into a hash using an array of size 8 and hashing function $h(ch) = (ch - 'a') \% 8$ and linear probing.

When submitting online provide intermediate steps:

```

0  1  2  3  4  5  6  7
-  -  -  -  -  -  -  - // empty
-  d  -  e  -  -  -  - // after 1st insert
-  d  -  e  f  -  -  -  - // after 2nd insert
etc
comments are not required

```

2. For each character in the hash calculate the number of probes required to find it. When submitting online:

```

h - ?
r - ?
m - ?
x - ?
y - ?
i - ?

```

3. For characters 'q', 'c', 'w' calculate the number of probes required to declare the character is not in the hash. When submitting online:

```

q - ?
c - ?
w - ?

```