Q2 a)

H(1234) = (43 + 21 + 3) % 11 = 67 % 11 = 1

H(519) = (91 + 15 + 1) % 11 = 107 % 11 = 8

H(911) = (11 + 19 1) % 11 = 31 % 11 = 9

H(7346) = (64 + 37 + 4) % 11 = 105 % 11 = 6

H(0) = (0 + 0 + 0) % 11 = 0 % 11 = 0

H(999) = (99 + 99 + 9) % 11 = 207 % 11 = 9

H(99834) = (43 + 99 + 8) % 11 = 150 % 11 = 7

H(54) = (45 + 45 + 4) % 11 = 94 % 11 = 6

H(40015) = (51 + 04 + 0) % 11 = 55 % 11 = 0

Key	H(Key)
1234	1
519	8
911	9
7346	6
0	0

Key	H(Key)
999	9
99834	7
54	6
40015	0

Q2 b)

0	**0**	**1**
1	**1234**	**1**
2	**54**	**8**
3	**40015**	**4**
4		
5		
6	**7346**	**1**
7	**99834**	**1**
8	**519**	**1**
9	**911**	**1**
10	**999**	**2**

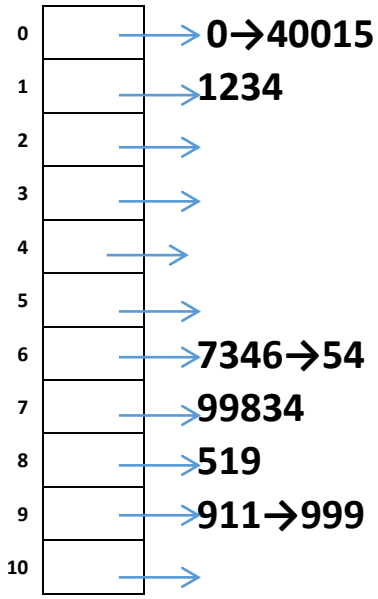
Q2 c)

- The number of probes required to search for keys 54 is 8.

H(11) = (11 + 11 + 1) % 11 = 23 % 11 = 1

- The number of probes required to search for keys 11 is 4.

Q2 d)



Q2 Extra) **Repeat (b) using coalesced chaining with a cellar size of one.**