

1. What does an extendable hash table with a bucket size of 2 look like after the following values are inserted. Redraw the table each time the directory size doubles. Assume the values are inserted in the order shown below and the initial directory size is 2.

Key	Hash Values
21	0001
42	0010
3	0011
45	0100
51	0101
6	0110
70	0111
18	1000
9	1001
14	1010

2. Show what your answer to problem 1 looks like after the following values are removed. Assume they are removed in the order shown. Redraw the table each time the directory is made smaller.

Key
3
9
6
18
51