Q1.a) Sort the following array by using bucket sort. Explain and highlight the changes in each step.

9	+3	5	2	6	8	+6	1	3

b) What is the time complexity of bucket sort.

(a)

9	-3	5	2	6	8	-6	1	3

take a for loop and find the higest
to   number in the array that
      is the range.

0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0

9	+3	5	2	6	8	+6	1	3

↑ → ↑   iterate.   ⑦

0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	1

0	1	2	3	4	5	6	7	8	9
0	0	0	1	0	0	0	0	0	1

0	1	2	3	4	5	6	7	8	9
0	0	0	1	0	1	0	0	0	1

0	1	2	3	4	5	6	7	8	9
0	0	1	1	0	1	0	0	0	1

0	1	2	3	4	5	6	7	8	9
0	0	1	1	0	0	1	0	0	