

Review 7

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1. Illustrate the operation of COUNTING-SORT on the array $A = \{6, 2, 1, 3, 1, 3, 2\}$.

A

6	2	1	3	1	3	2
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C

1	2	3	4	5	6
2	2	2	2	0	1

B

1	2	3	4	5	6	7
			2			

B

1	2	3	4	5	6	7
			2		3	

B

1	2	3	4	5	6	7
	1		2		3	

B

1	2	3	4	5	6	7
	1		2	3	3	

(1 2 2 3 3 6

C

1	2	3	4	5	6
2	4	6	6	6	7

C

1	2	3	4	5	6
2	3	6	6	6	7

C

1	2	3	4	5	6
2	3	5	6	6	7

C

1	2	3	4	5	6
1	3	5	6	6	7

C

1	2	3	4	5	6
1	3	4	6	6	7

⋮

2. Fill in the following RADIX-SORT example.

C	O	W
D	O	G
S	E	A
R	U	G
R	O	W
M	O	B
B	O	X
T	A	B
B	A	R
E	A	R
T	A	R



S	E	A
M	O	B
T	A	B
D	O	G
R	U	G
B	A	R
E	A	R
T	A	R
C	O	W
R	O	W
B	O	X



T	A	B
B	A	R
E	A	R
T	A	R
S	E	A
M	O	B
D	O	G
C	O	W
R	O	W
B	O	X
R	U	G



B	A	R
B	O	X
C	O	W
D	O	G
E	A	R
M	O	B
R	O	W
R	U	G
S	E	A
T	A	B
T	A	R