Algorithm Analysis (ITP)

HW6

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1. Counting Sort

1st ‘for’ Loop

A 6 0 2 0 1 3 4 6 1 3 2

B

C 0 0 0 0 0 0 0

2nd ‘for’ Loop

A 6 0 2 0 1 3 4 6 1 3 2

B

C 2 2 2 2 1 0 2

3rd ‘for’ Loop

A 6 0 2 0 1 3 4 6 1 3 2

B

C 2 4 6 8 9 9 11

4th ‘for’ Loop

A 6 0 2 0 1 3 4 6 1 3 2

B 0 0 1 1 2 2 3 3 4 6 6

C 2 4 6 8 9 9 11

1. Radix Sort

COW SEA TAB BAR

DOG TEA BAR BIG

SEA MOB EAR BOX

RUG TAB TAR COW

ROW DOG SEA DIG

MOB RUG TEA DOG

BOX DIG DIG EAR

TAB BIG BIG FOX

BAR 🡪 BAR 🡪 MOB 🡪 MOB

EAR EAR DOG NOW

TAR TAR COW ROW

DIG COW ROW RUG

BIG ROW NOW SEA

TEA NOW BOX TAB

NOW BOX FOX TAR

FOX FOX RUG TEA