Problem 1. Below is an input array of 3-digit integers.

Fill in the array after the first iteration of radix sort.

Fill in the array after the second iteration of radix sort.

Fill in the array after the third (and final) iteration of radix sort.

Problem 2. Determine the truth of the following statements about radix sort for a universe $U$.

Radix sort runs in $O(n \log(|U|))$ time.

For a fixed universe (i.e. $|U| = \Theta(1)$), counting sort is asymptotically slower than radix sort.

Radix sort can sort floats.

Radix sort is stable.
Problem 3. Below is an input array of up-to-length-4 strings.

```
| “abc” | “zyd” | “boo” | “z”  | “ex” | “tree” | “em” | “code” | “cat” | “ski” |
```

Fill in the array after the first iteration of radix sort.

```

```

Fill in the array after the second iteration of radix sort.

```

```

Fill in the array after the third iteration of radix sort.

```

```

Fill in the array after the fourth (and final) iteration of radix sort.

```

```