

## Radix sort 1 - preamble

```
1 void radix_sort(int a[], int n, int a_bound)
2 {
3
4     int exp_max=log10((double)a_bound)+1;
5     int a_sort[n];
6     int i,exp;
```

## Radix sort 2 - loop

```
7    for (exp=0;exp<exp_max;exp++)
8    {
9        int  buckets[10]={0}, digit=pow(10,exp);
10
11        for (i=0;i<n;i++) buckets[a[i]/digit%10]++;
12
13        for (i=1;i<10;i++) buckets[i]+=buckets[i-1];
14
15        for (i=n-1;i>=0;i--){
16            buckets[a[i]/digit%10]--;
17            a_sort[buckets[a[i]/digit%10]]=a[i];
18        }
19
20        for (i=0;i<n;i++)
21            a[i]=a_sort[i];
22    }
23 }
```