Radix Sort

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Bucket Sort

- Given that, we have N integers in the range 0 to M-1
- Maintain an array count of size M, which is initialized to zero. Thus, count has M cells (buckets).
- Read A_i
- Increment count[A_i] by 1
- After all the input array is read, scan the count array, printing out a representation of sorted list.

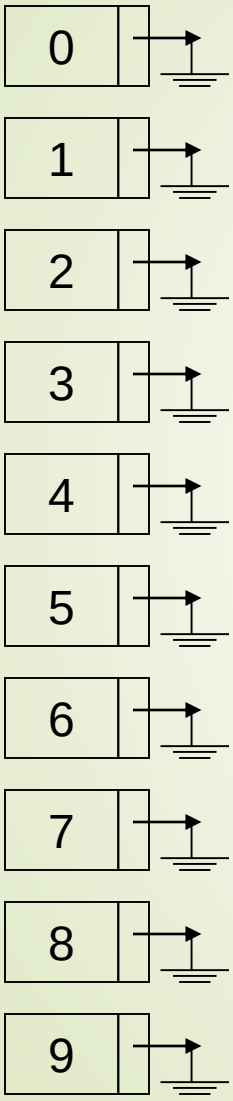
Radix Sort

- Radix sort is generalization of bucket sort.
- It uses several passes of bucket sort
- Perform the bucket sorts by "least significant digits"
  - First sort by digit in units place
  - Second sort by digit in tens place
  - Third sort by digit in hundreds place
  - ……..

Let's sort the following array using radix sort:

64	8	216	512	27	729	0	1	343	125

Pass 1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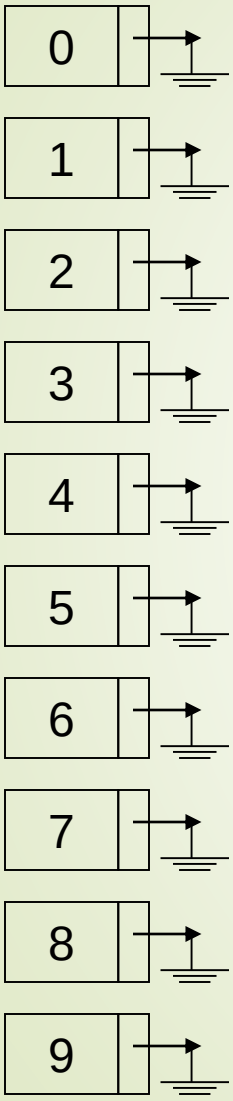
64	8	216	512	27	729	0	1	343	125



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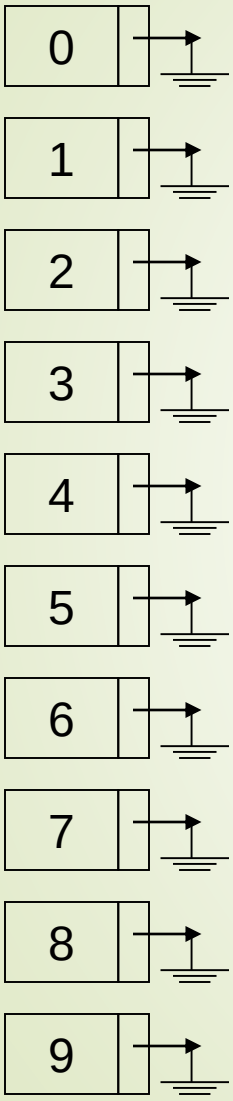

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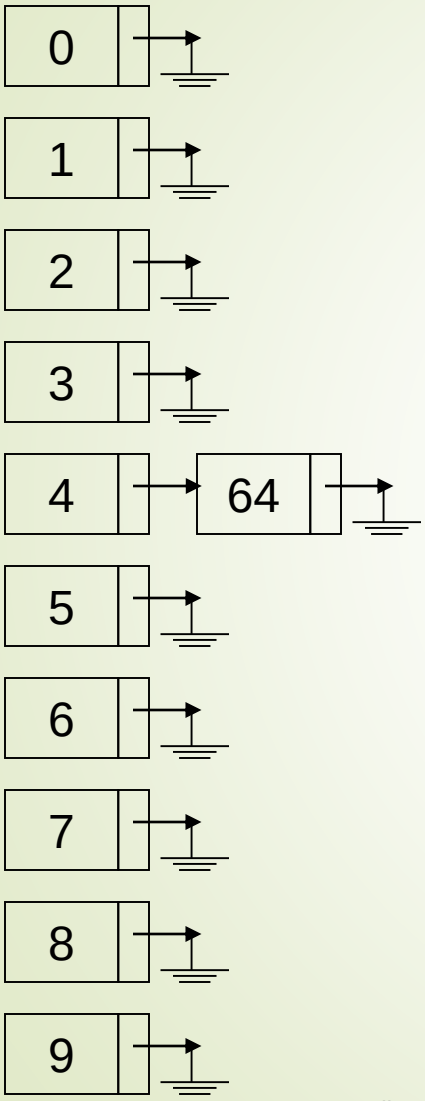

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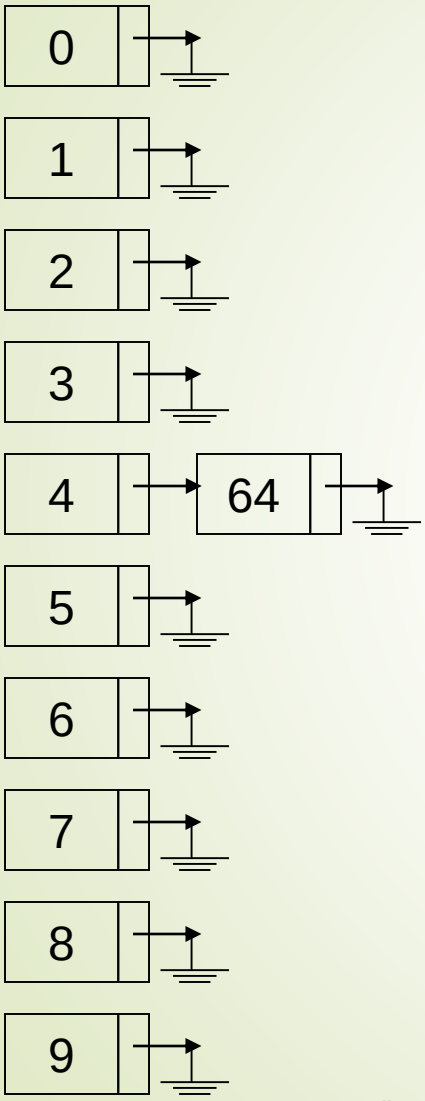

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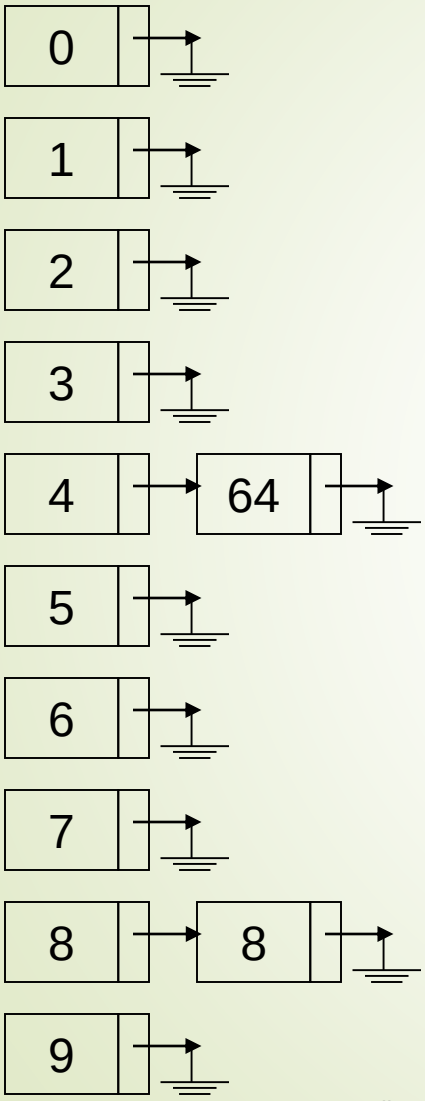

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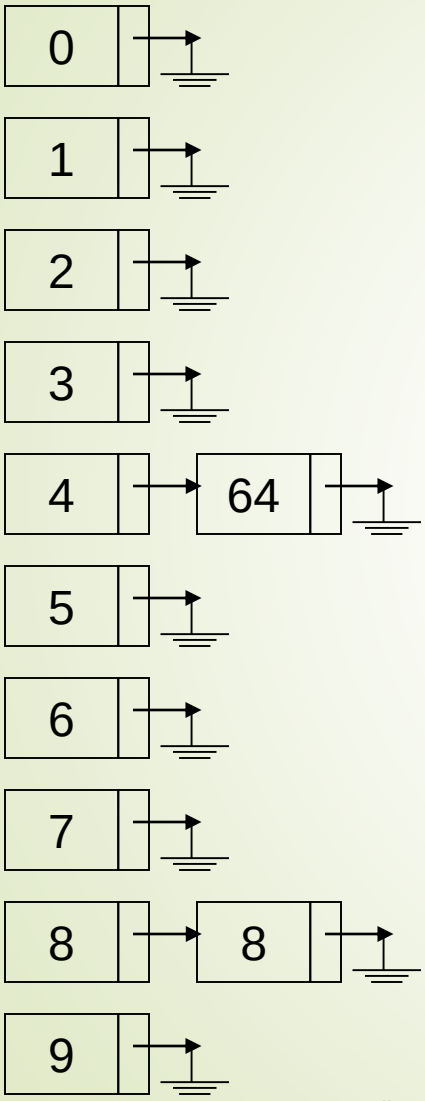

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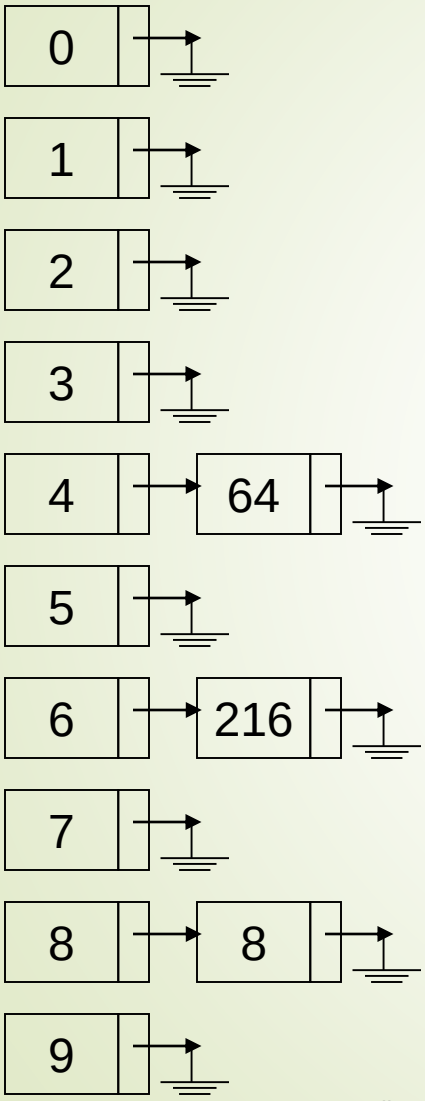

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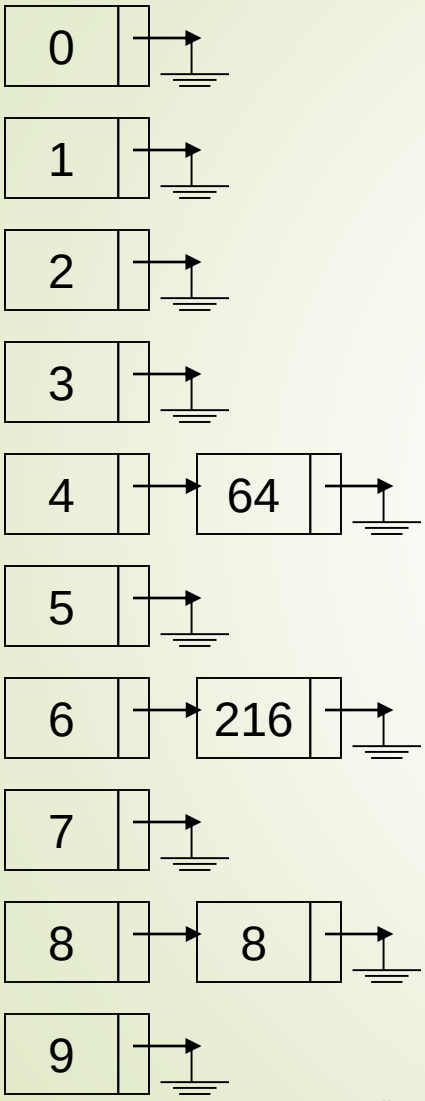

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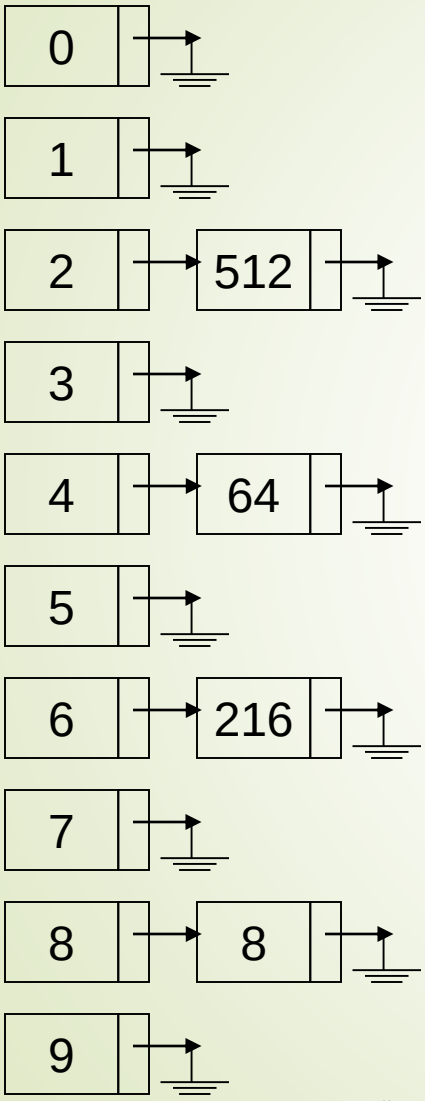

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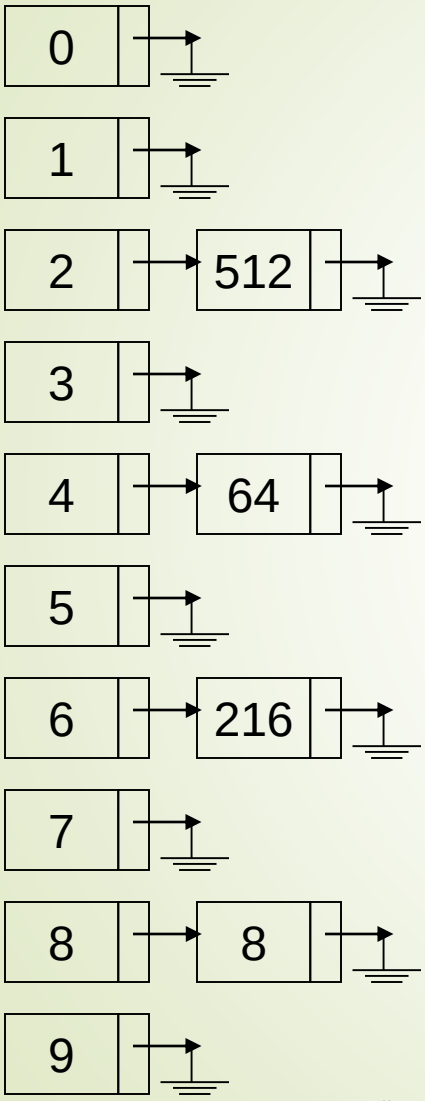

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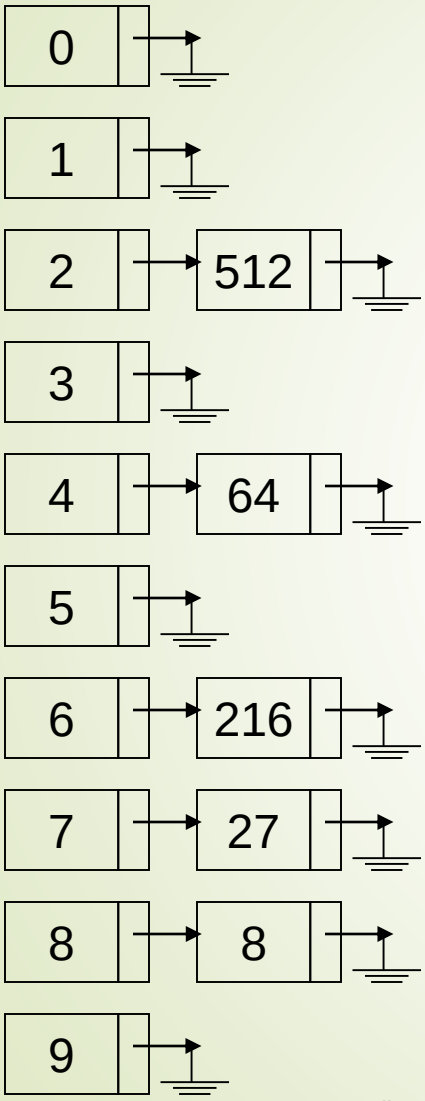

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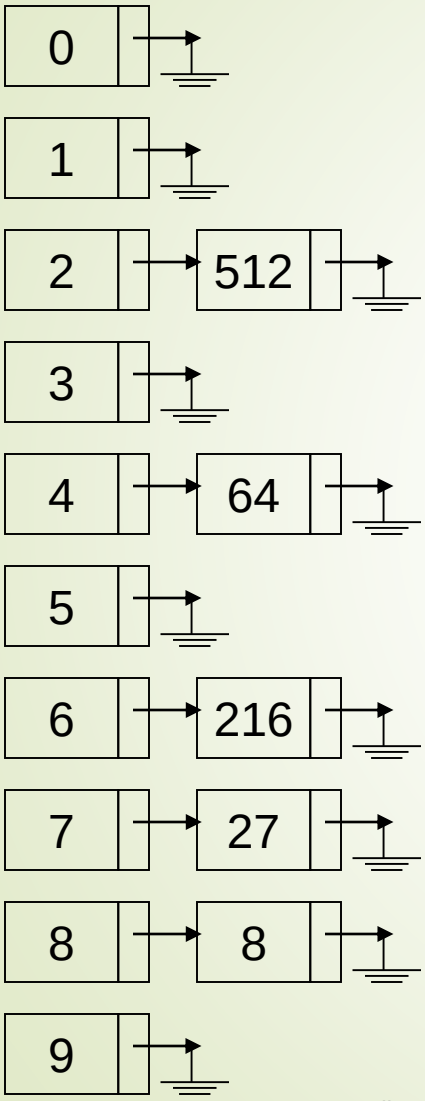

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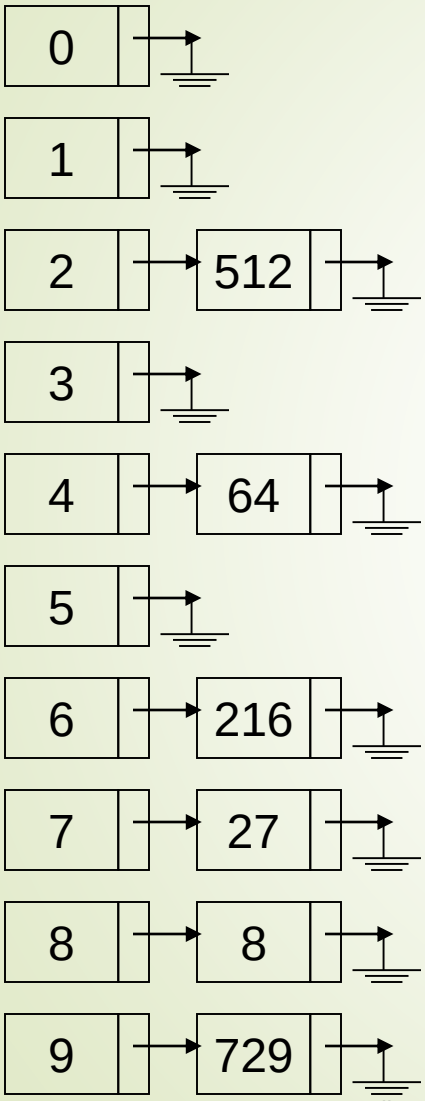

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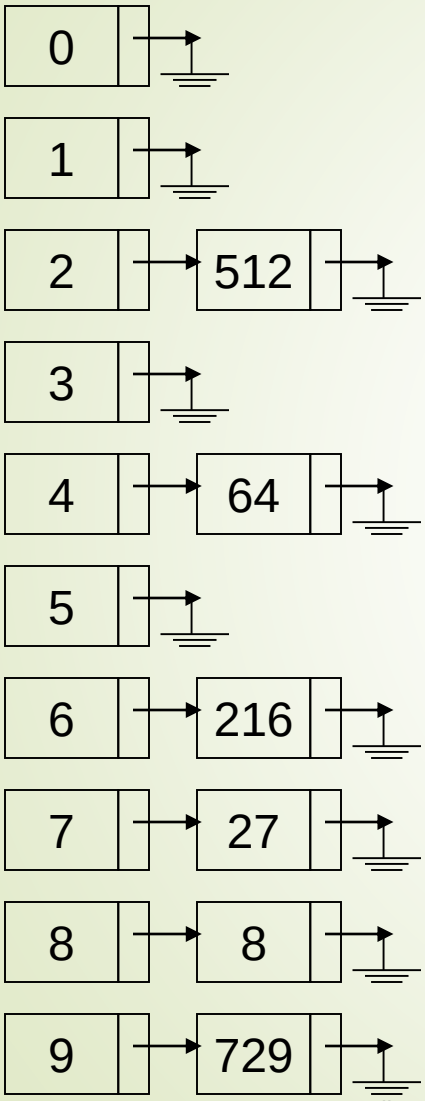

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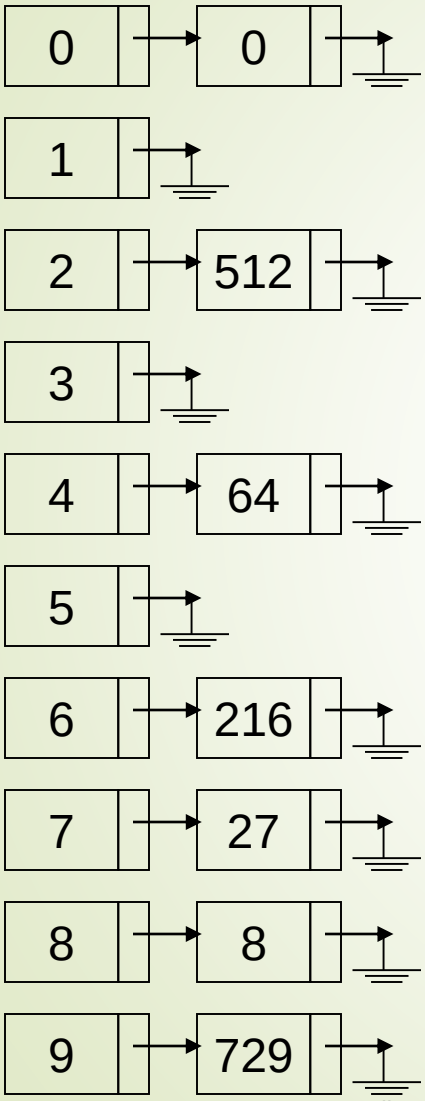

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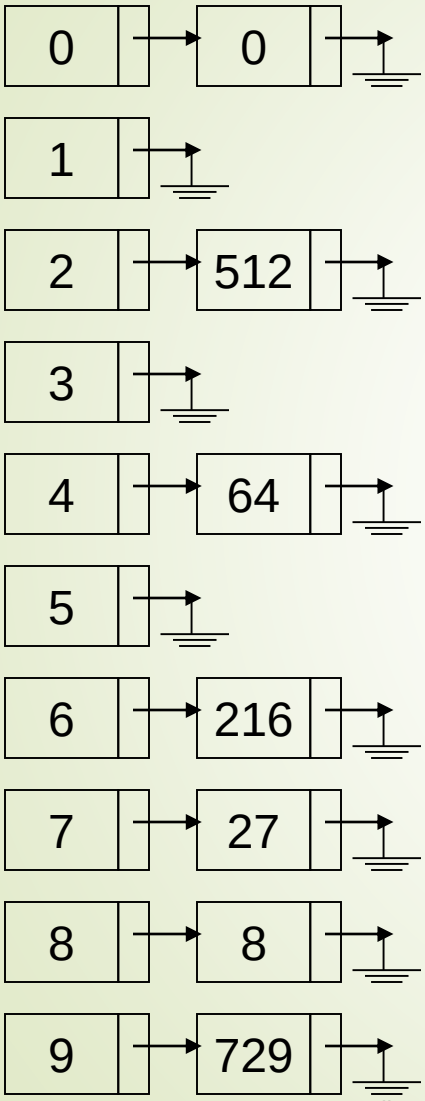

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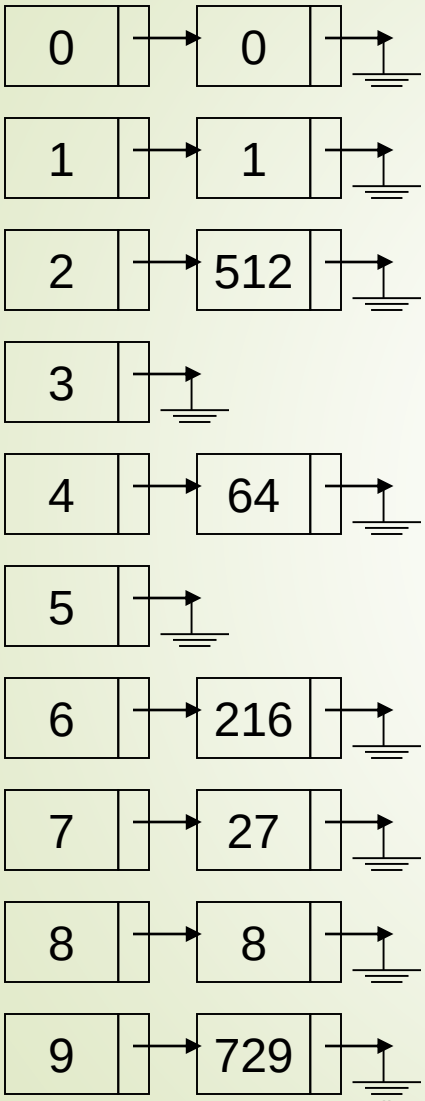

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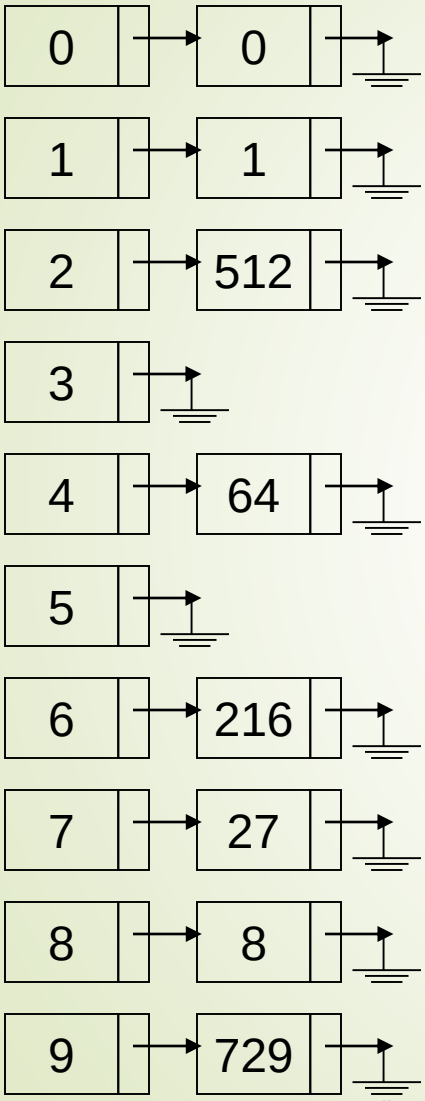

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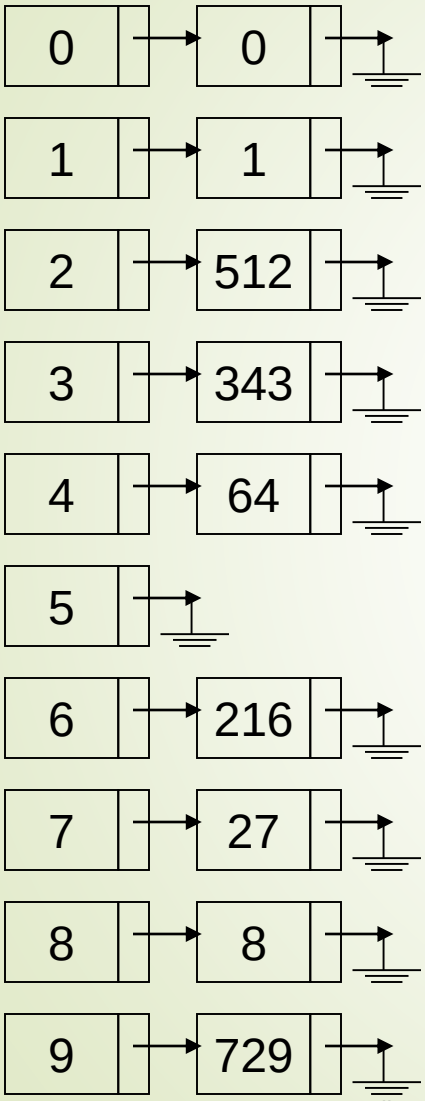

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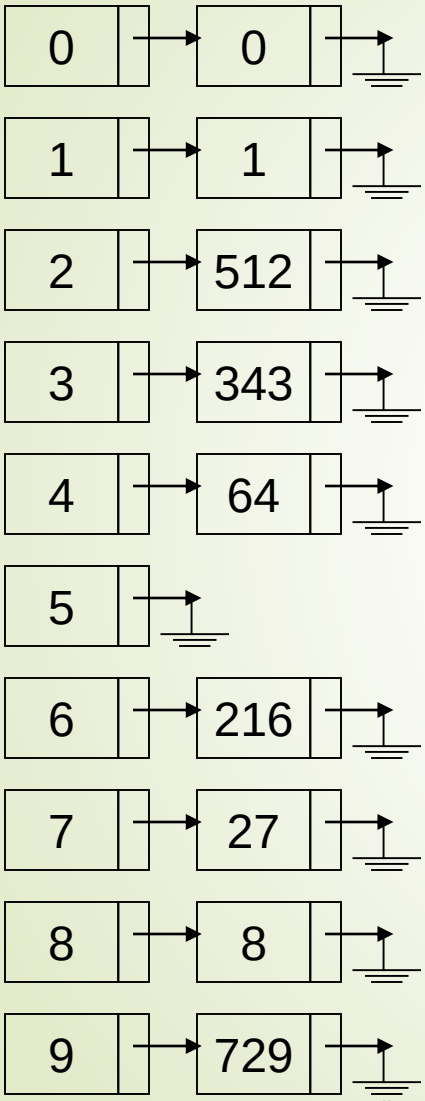

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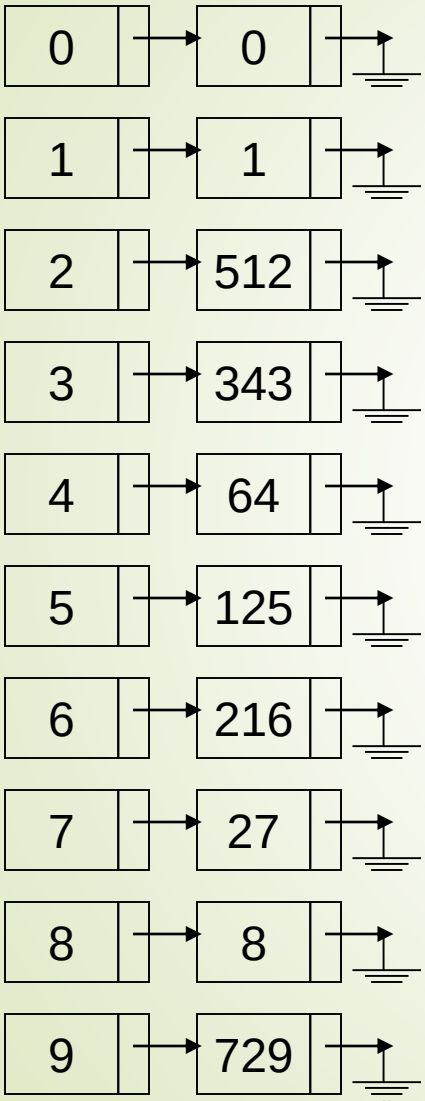

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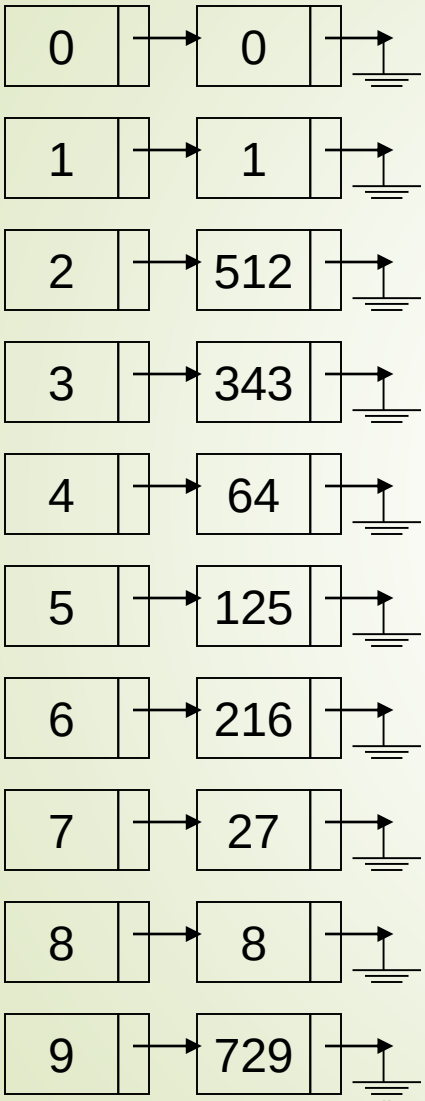

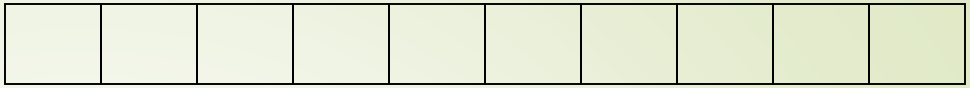

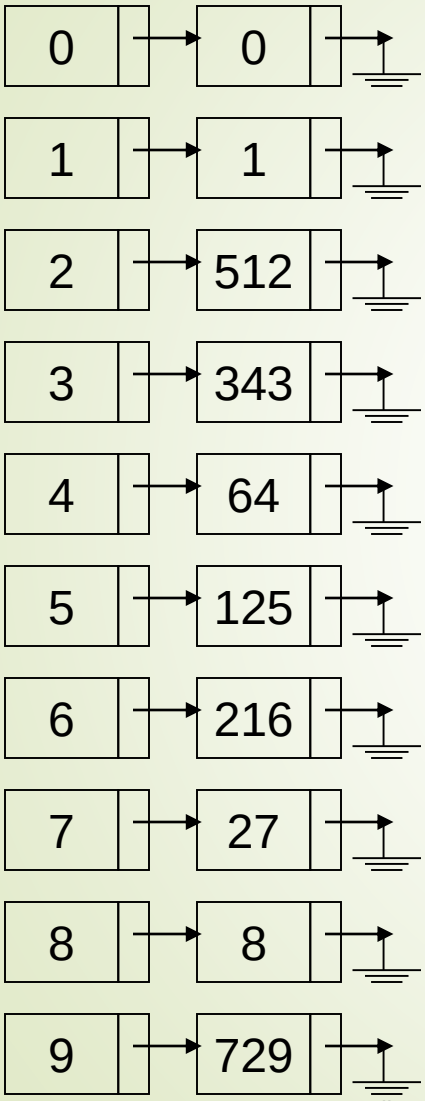
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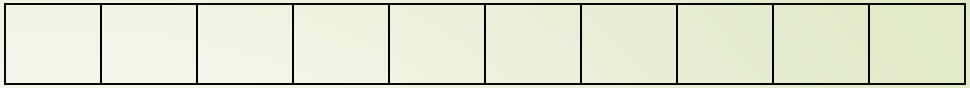

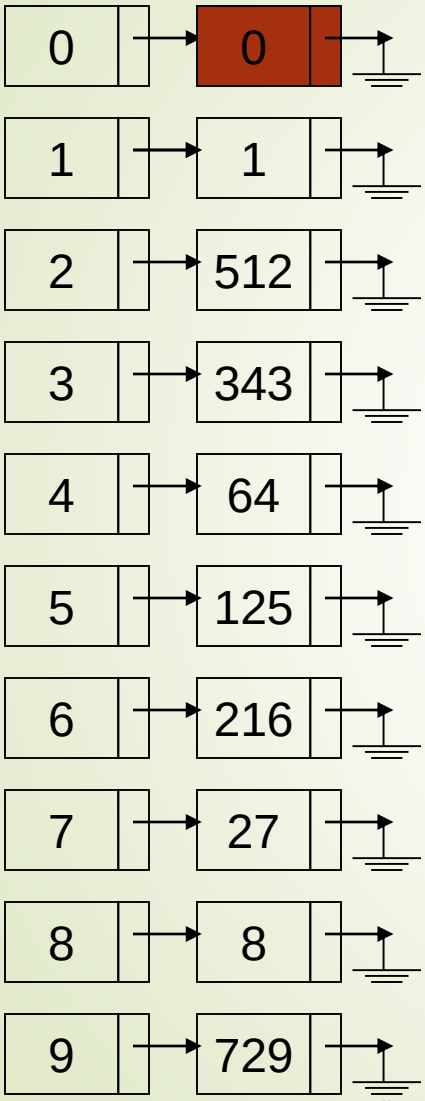
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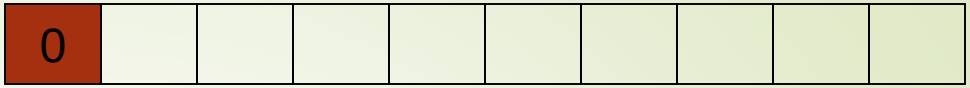
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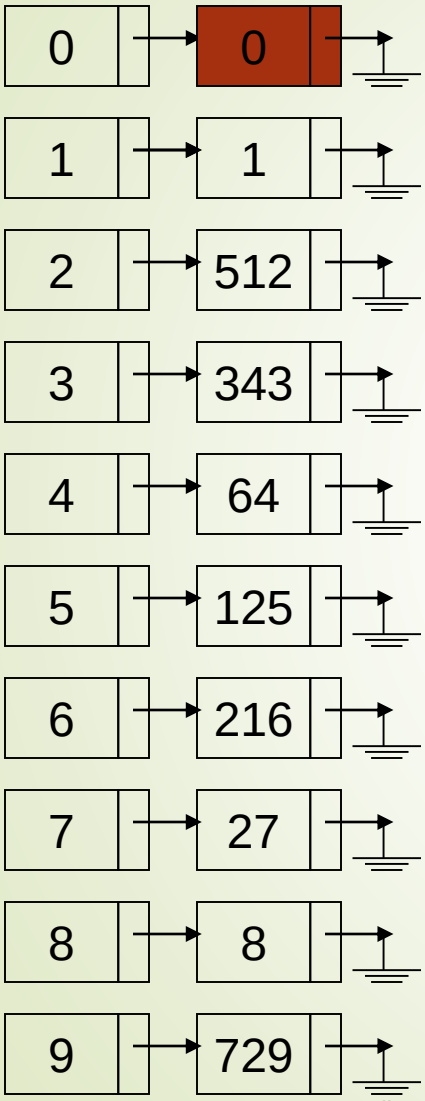
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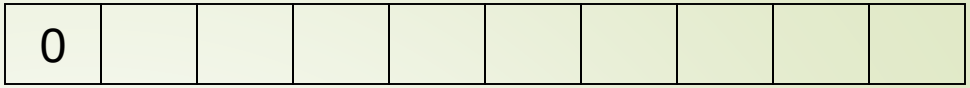
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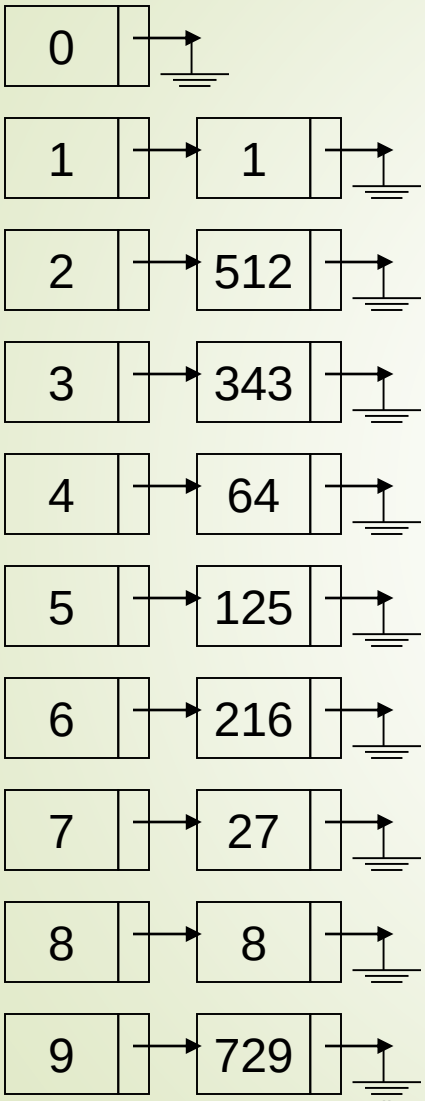
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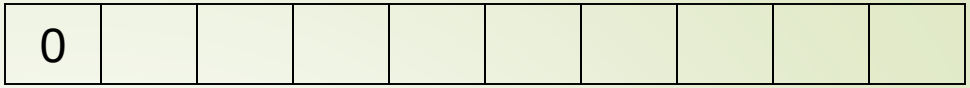
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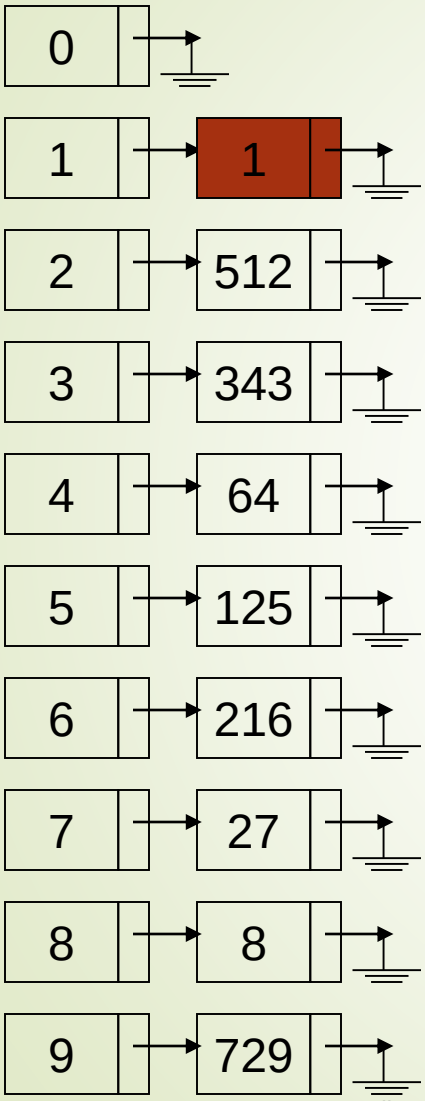
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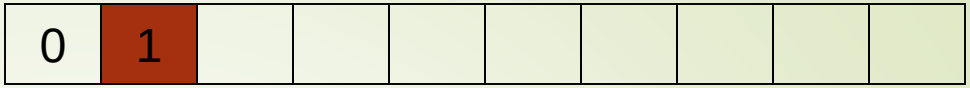
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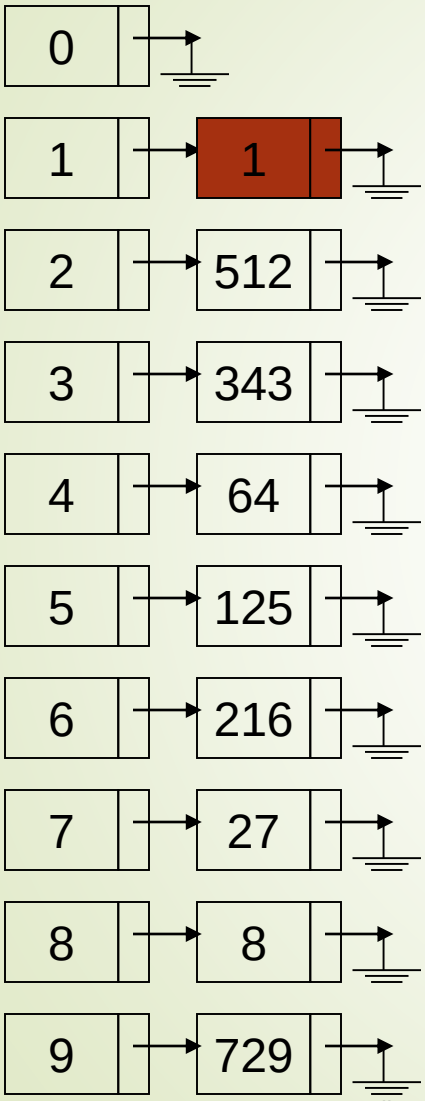
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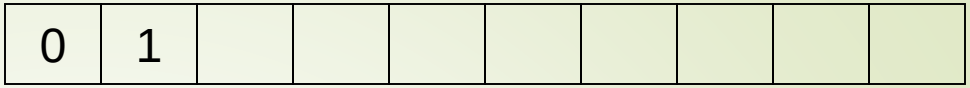
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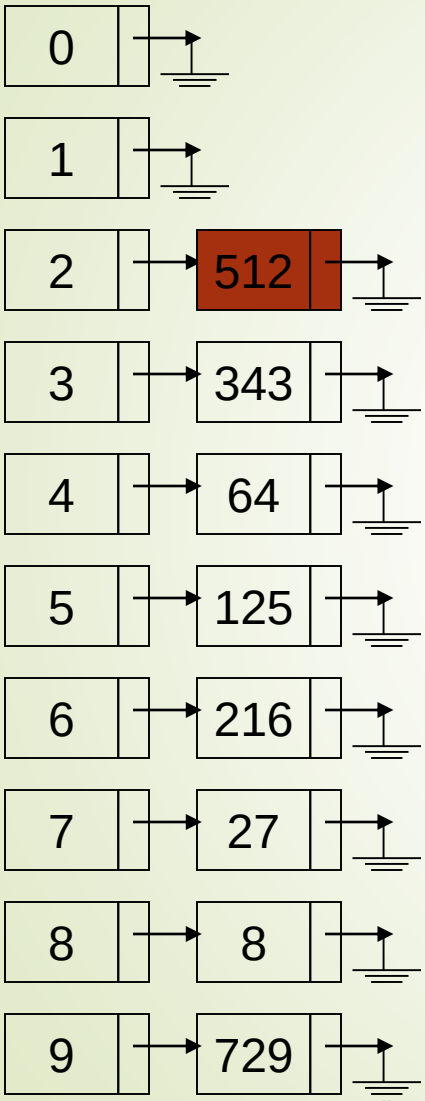
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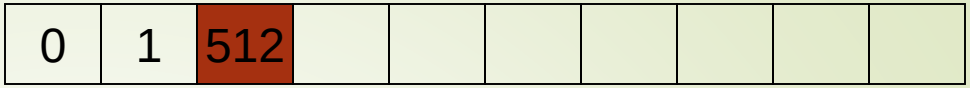
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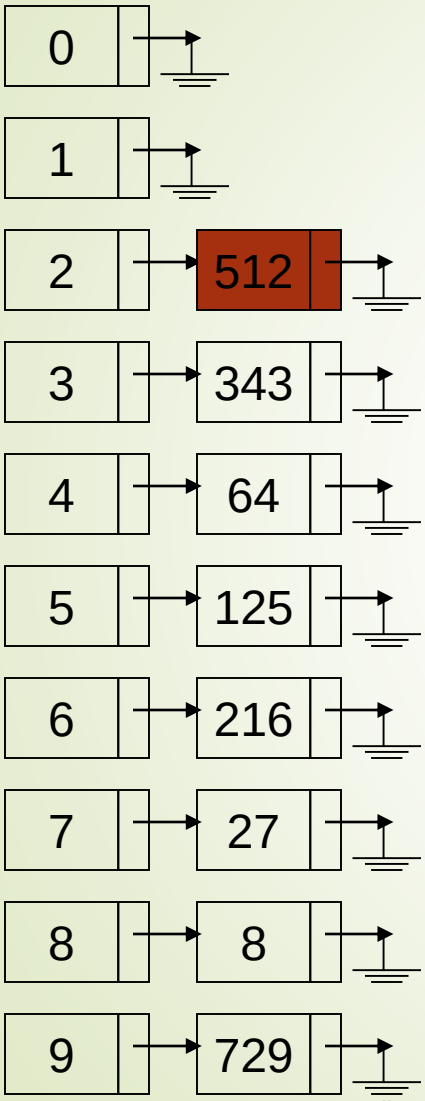
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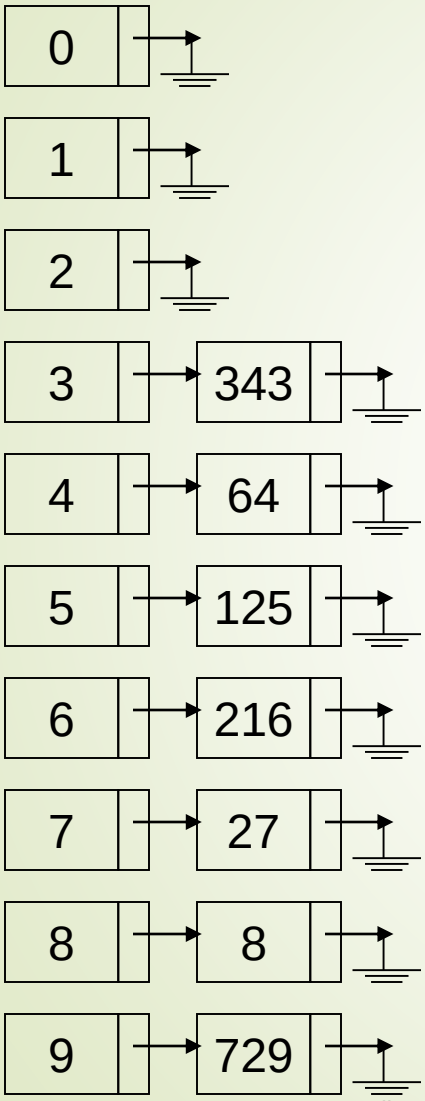

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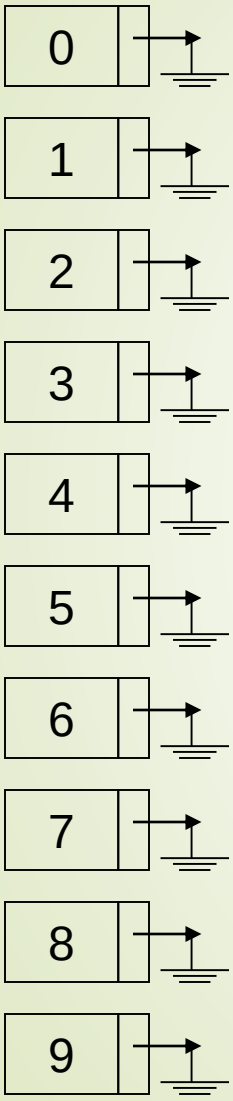

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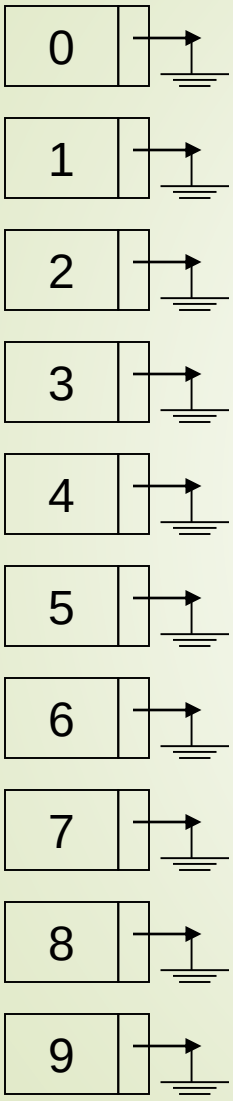

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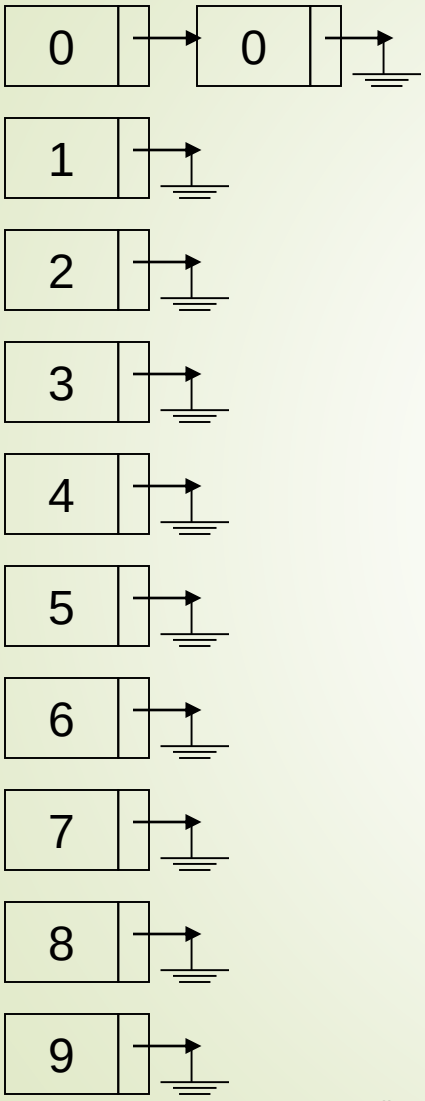

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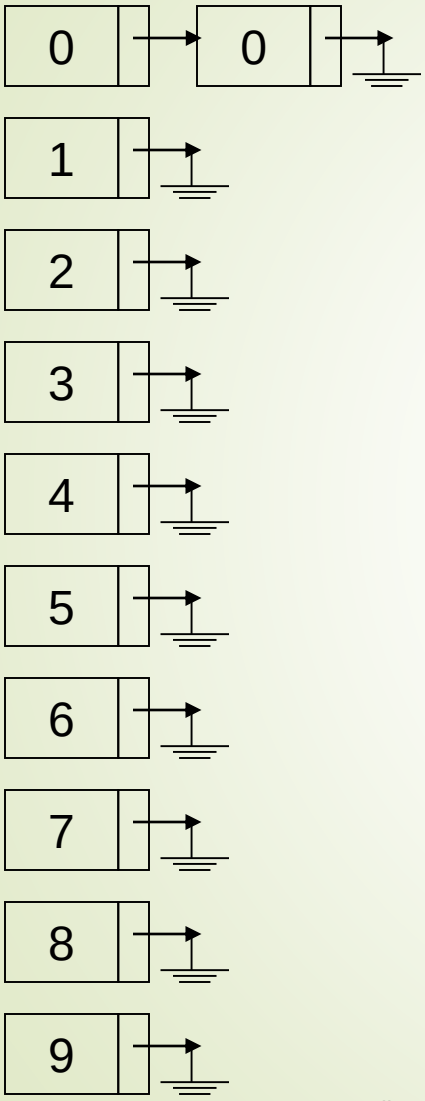

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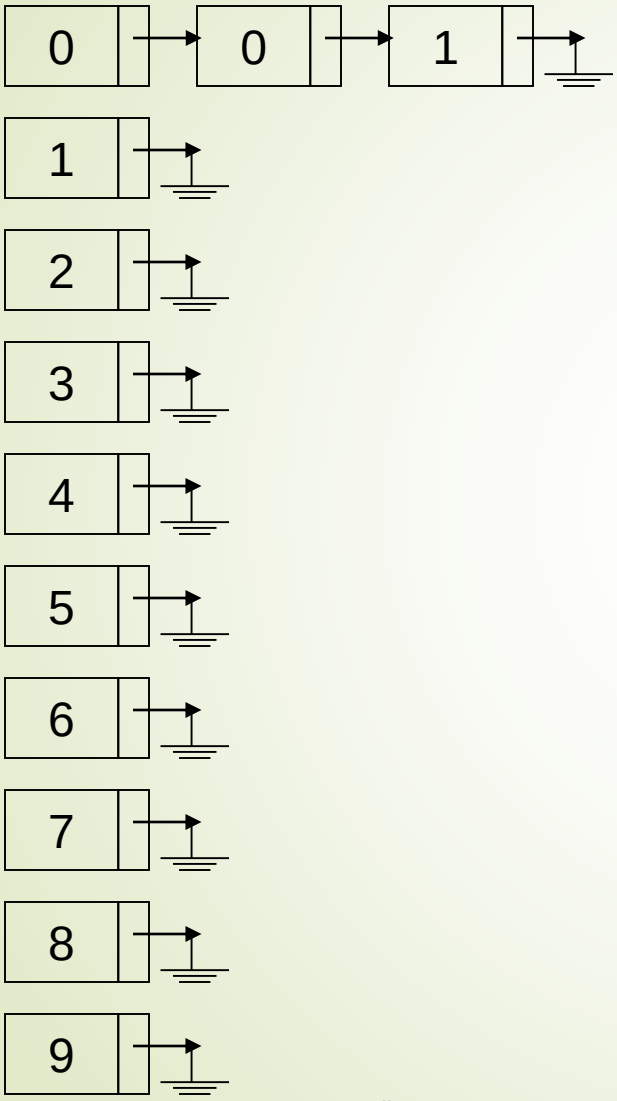

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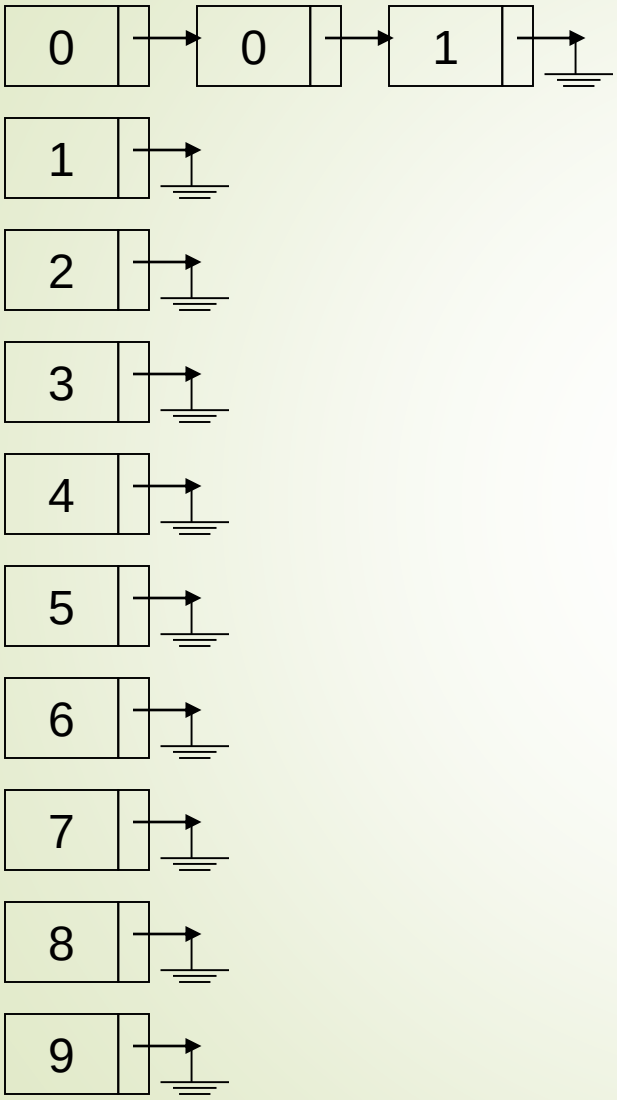

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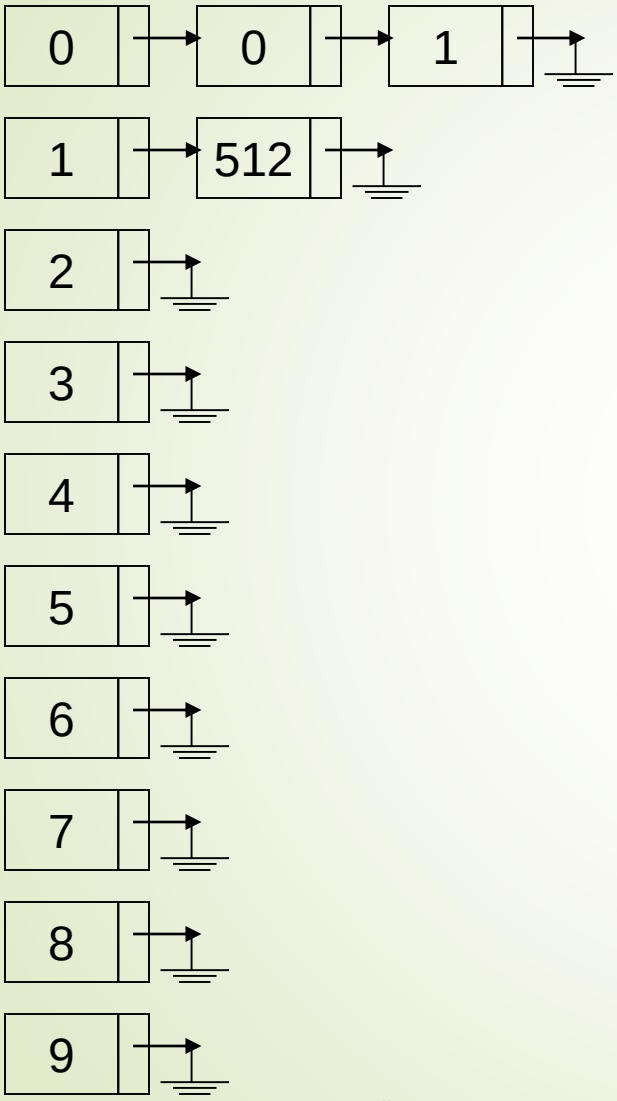

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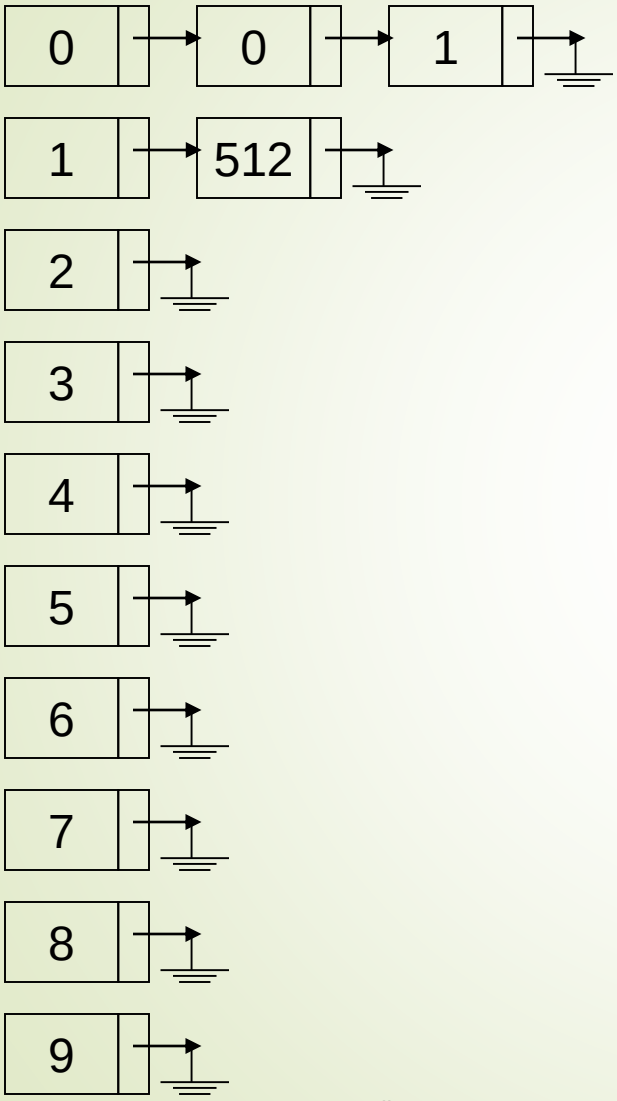

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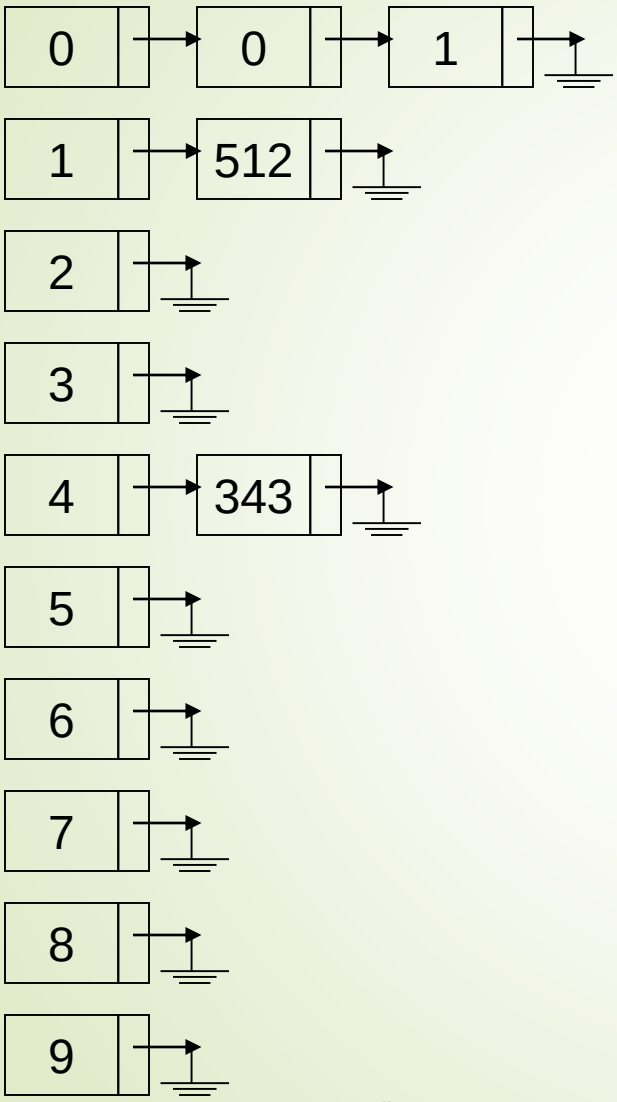

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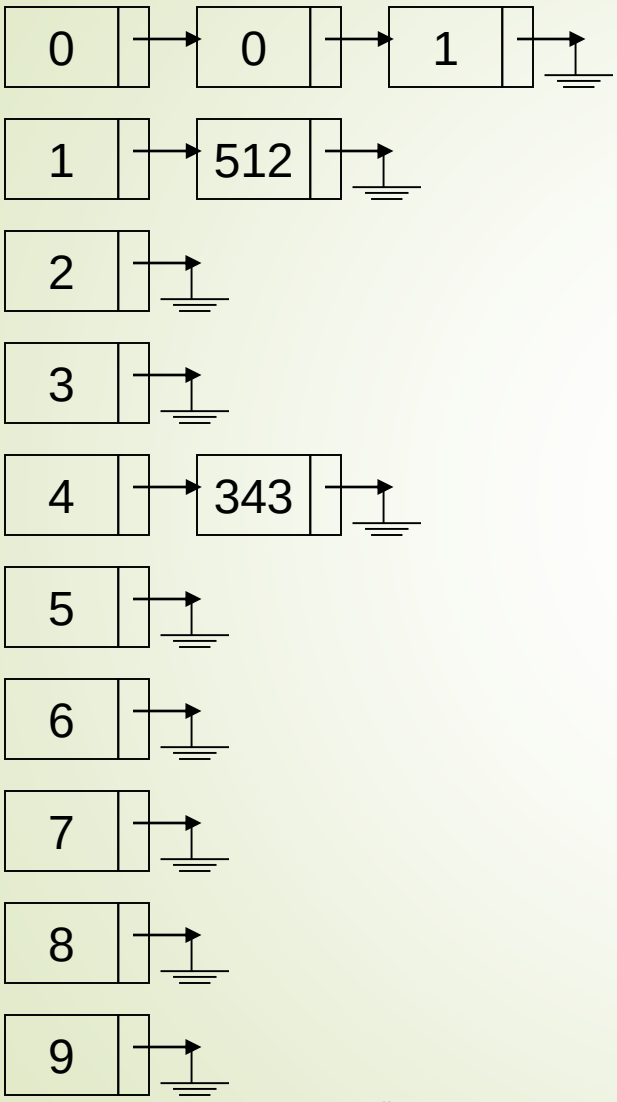

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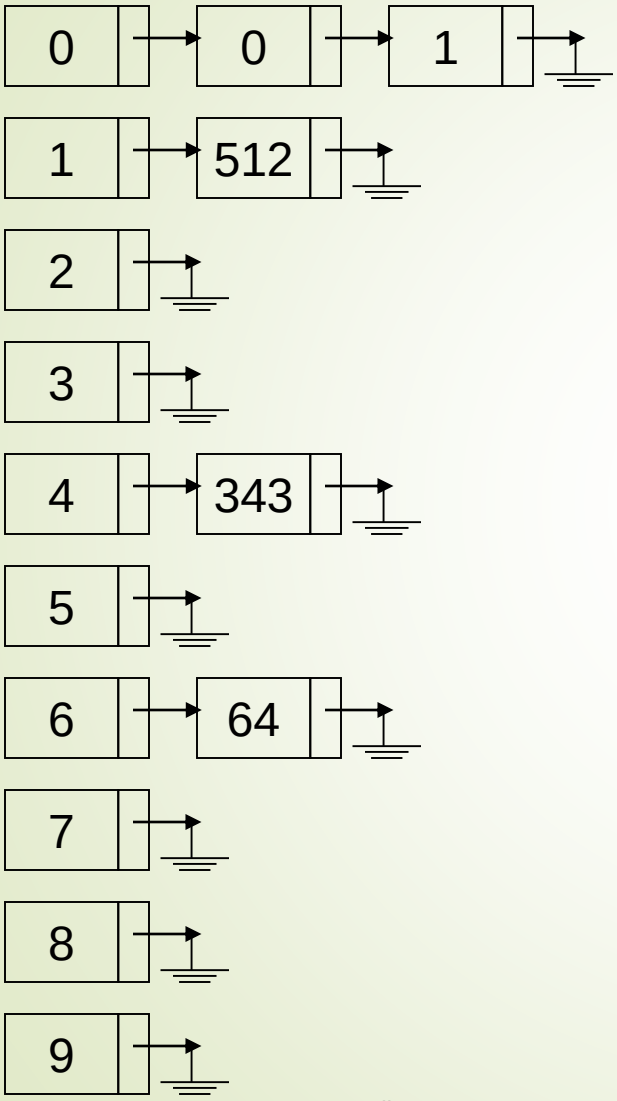

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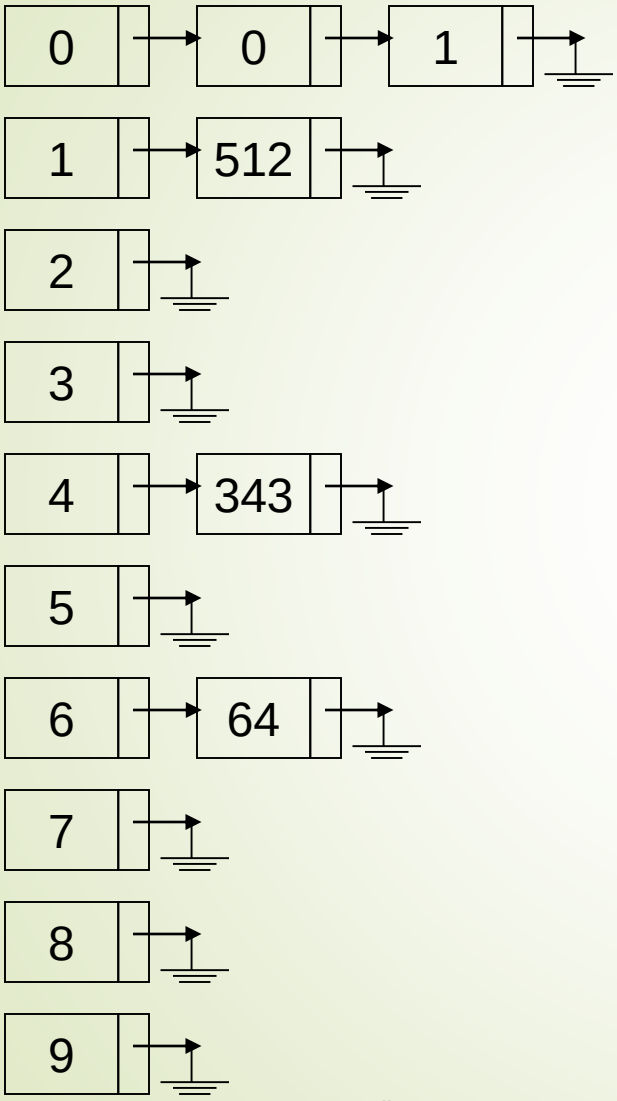

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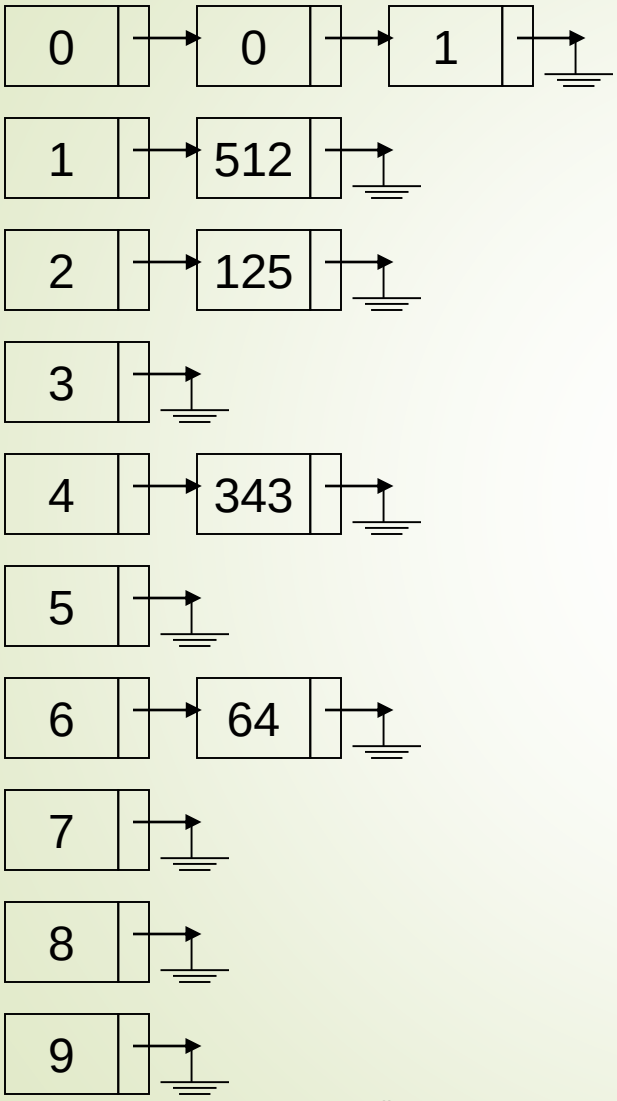

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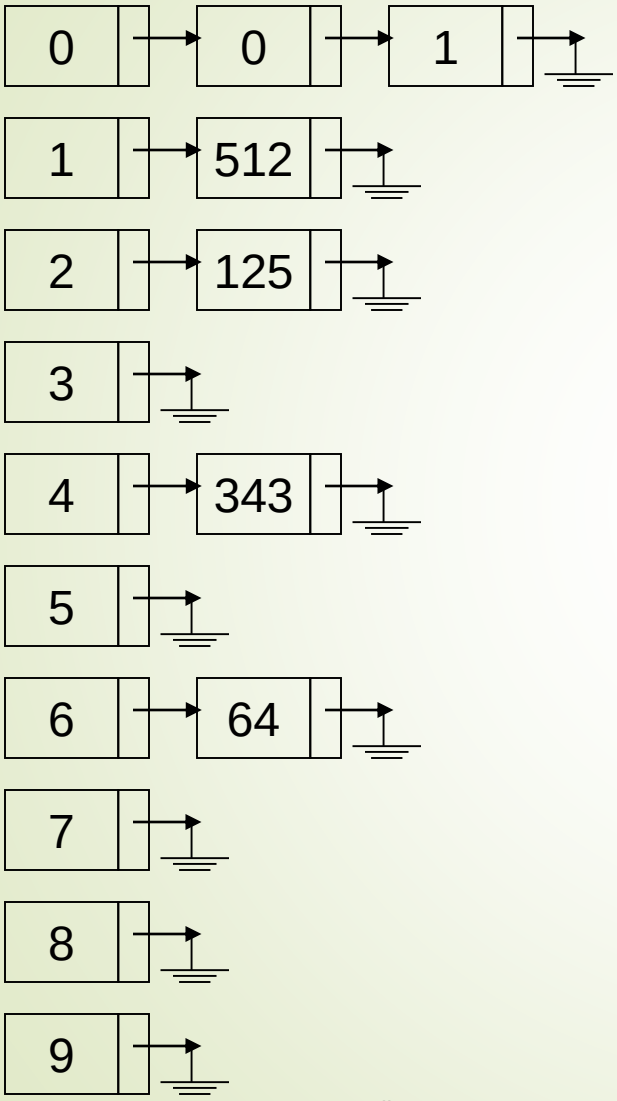

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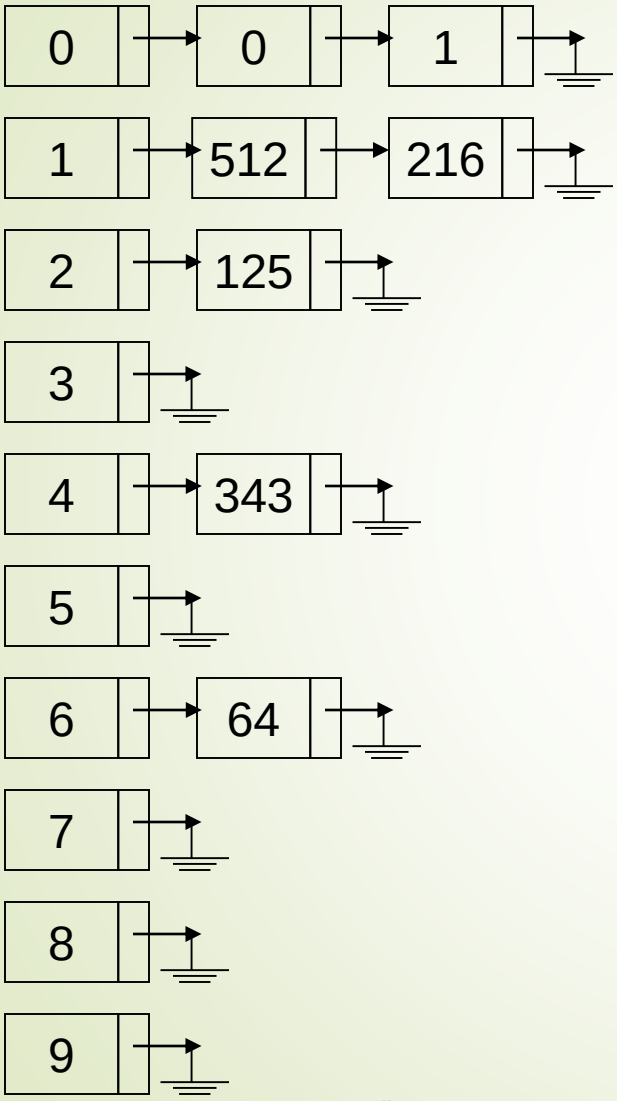

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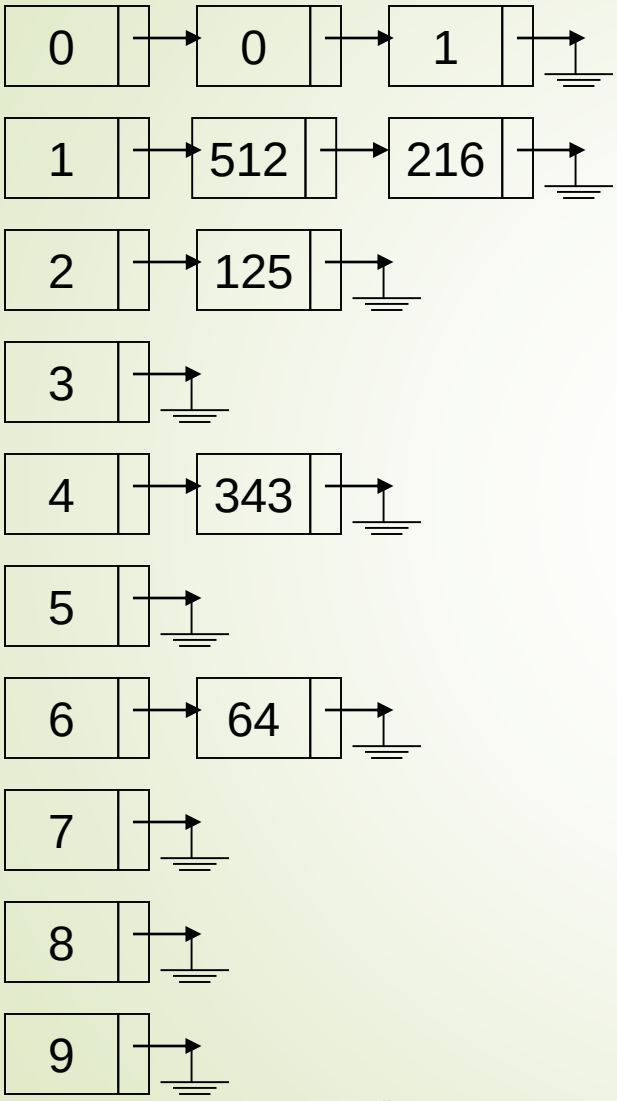

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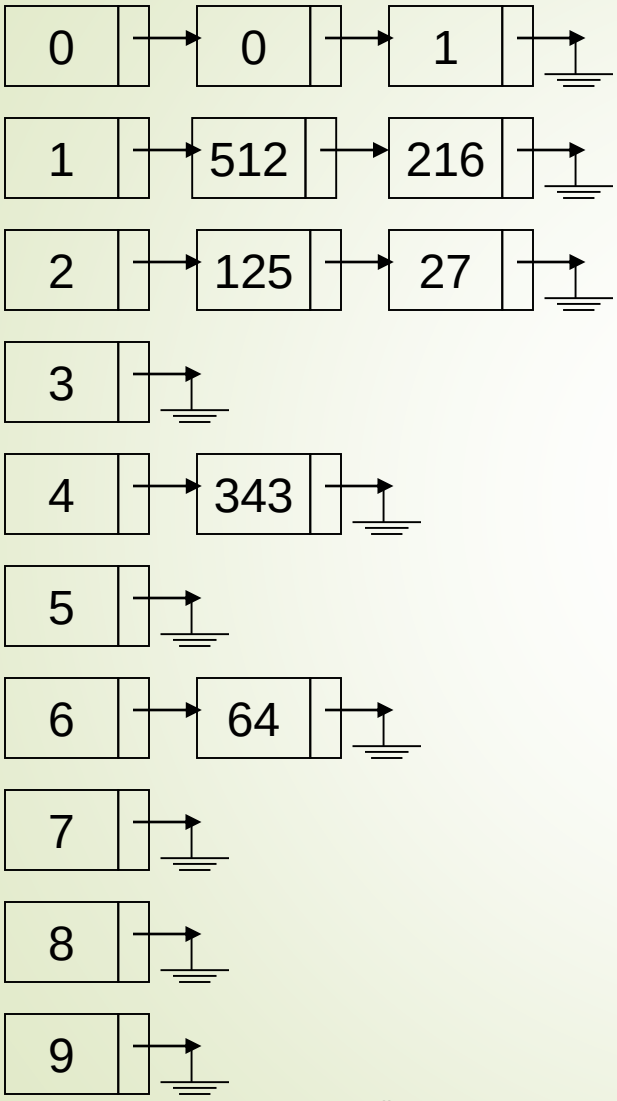

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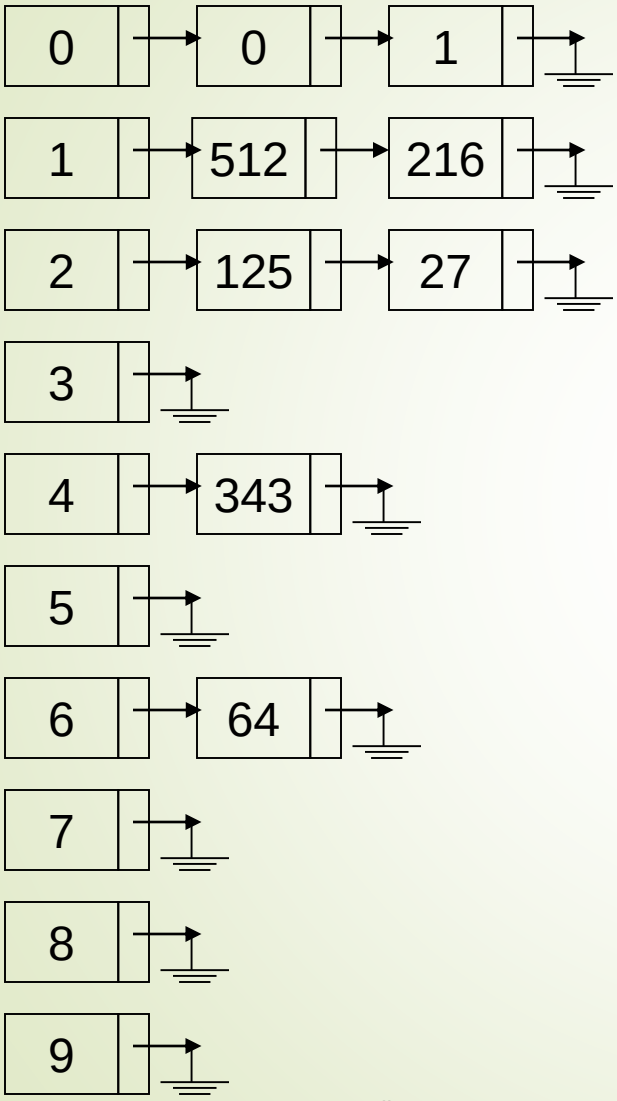

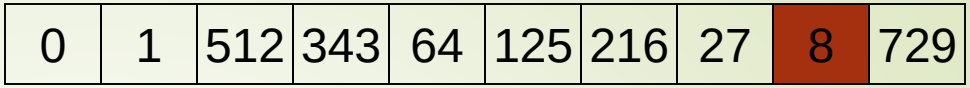
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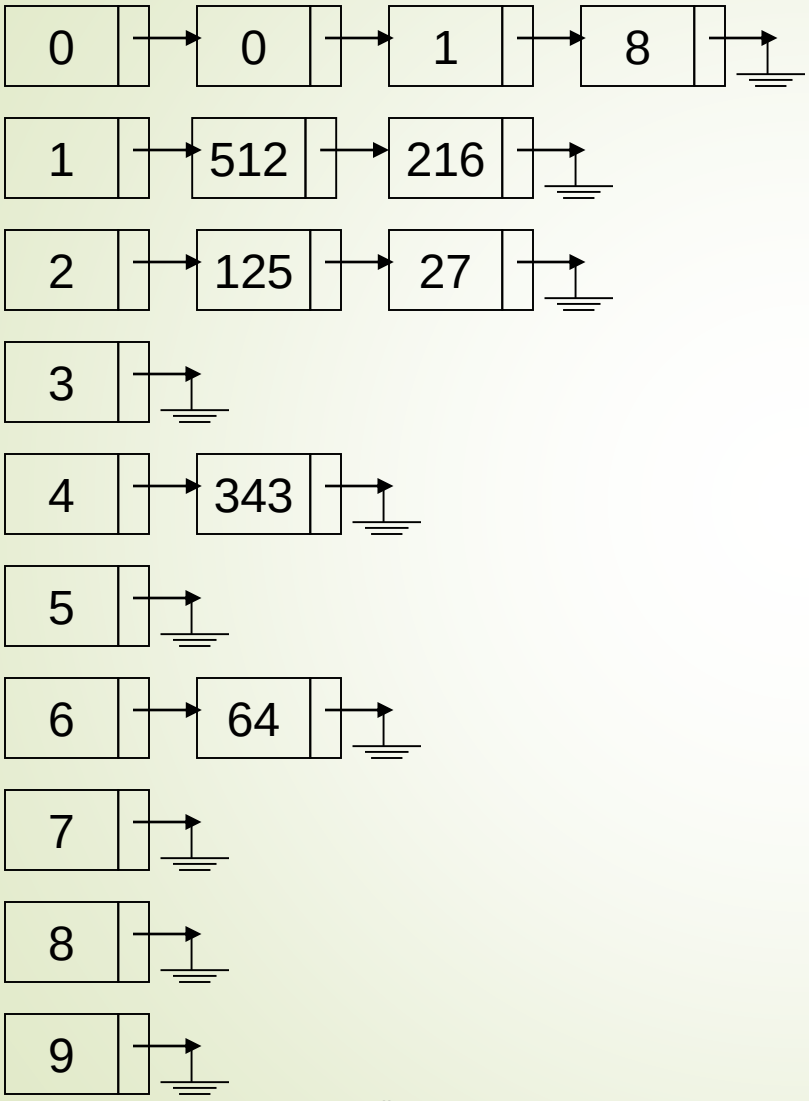
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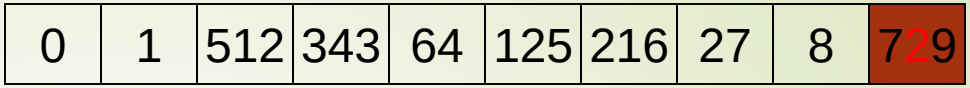
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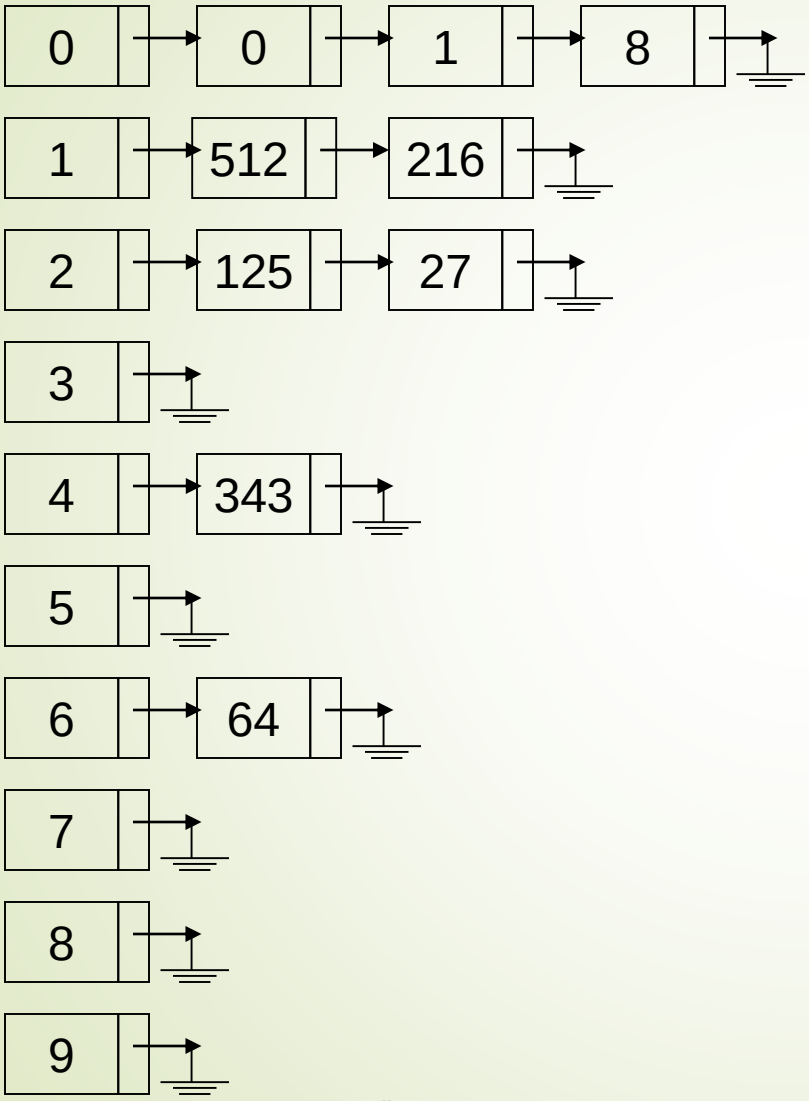
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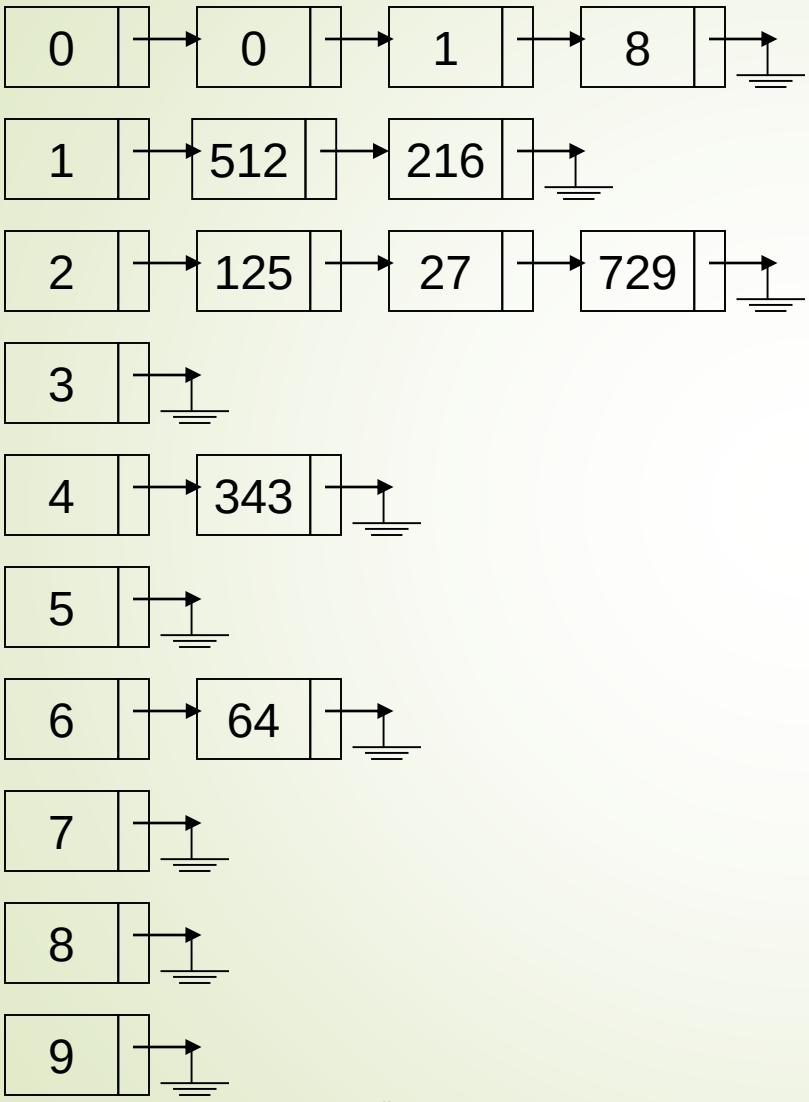

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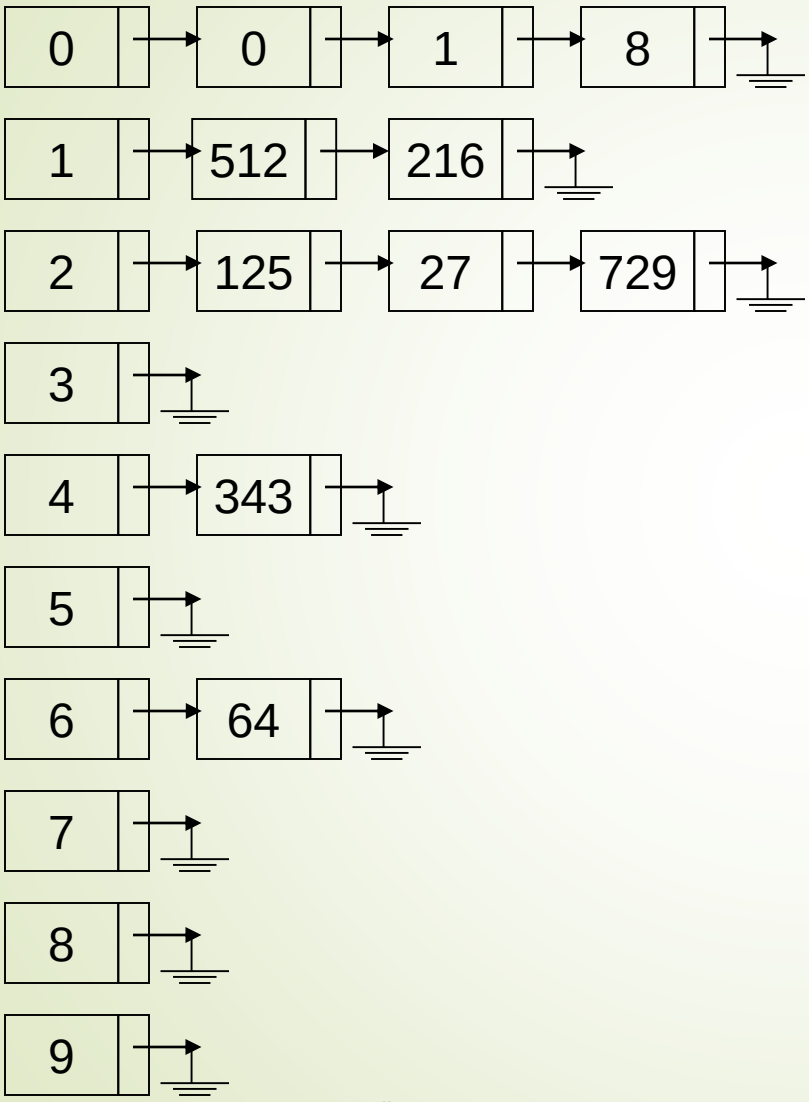

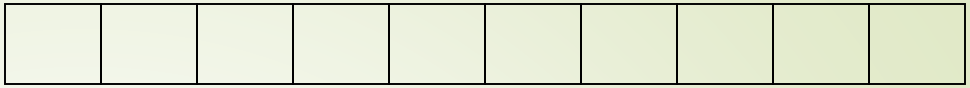

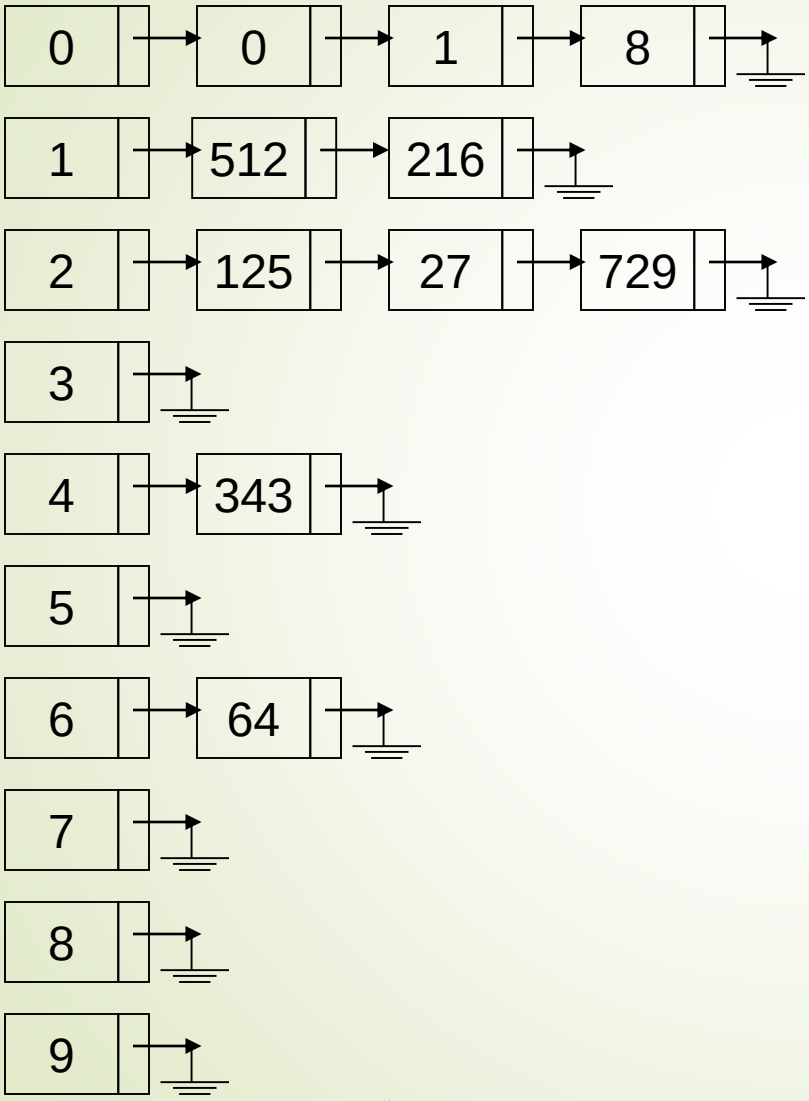
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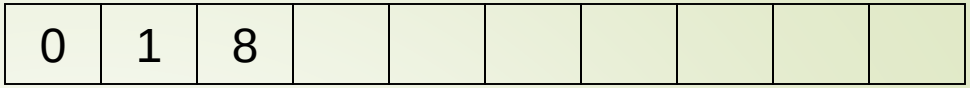
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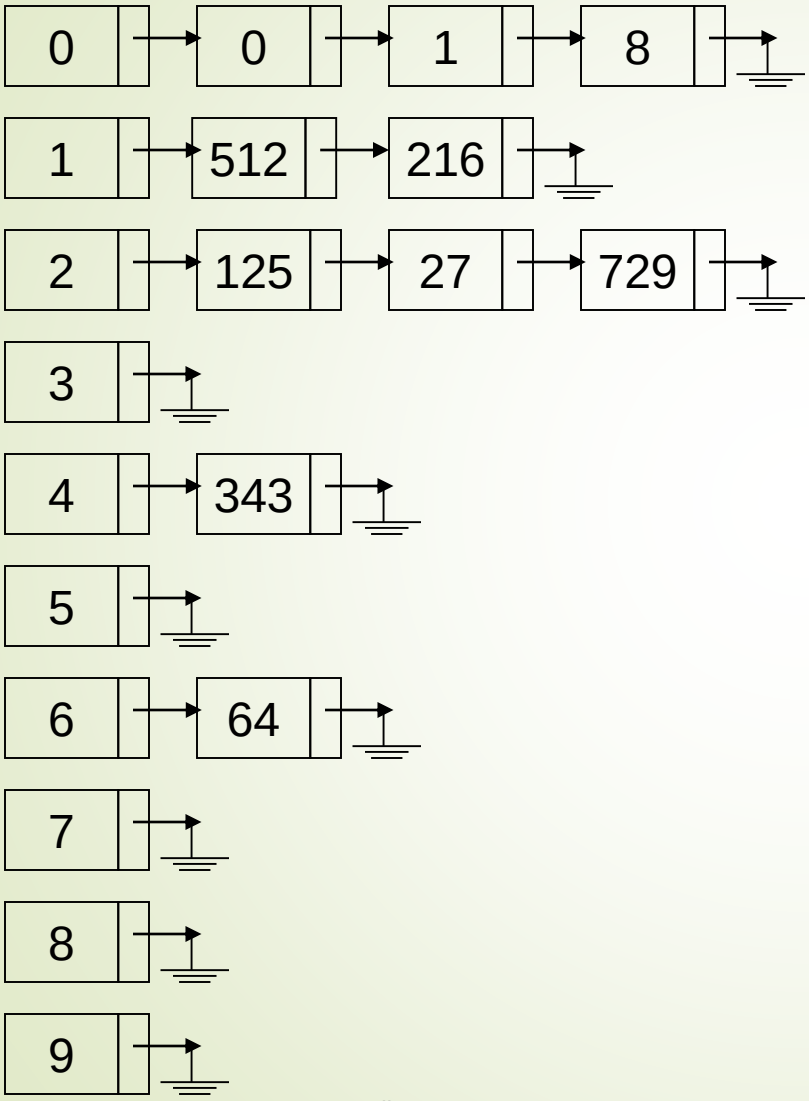
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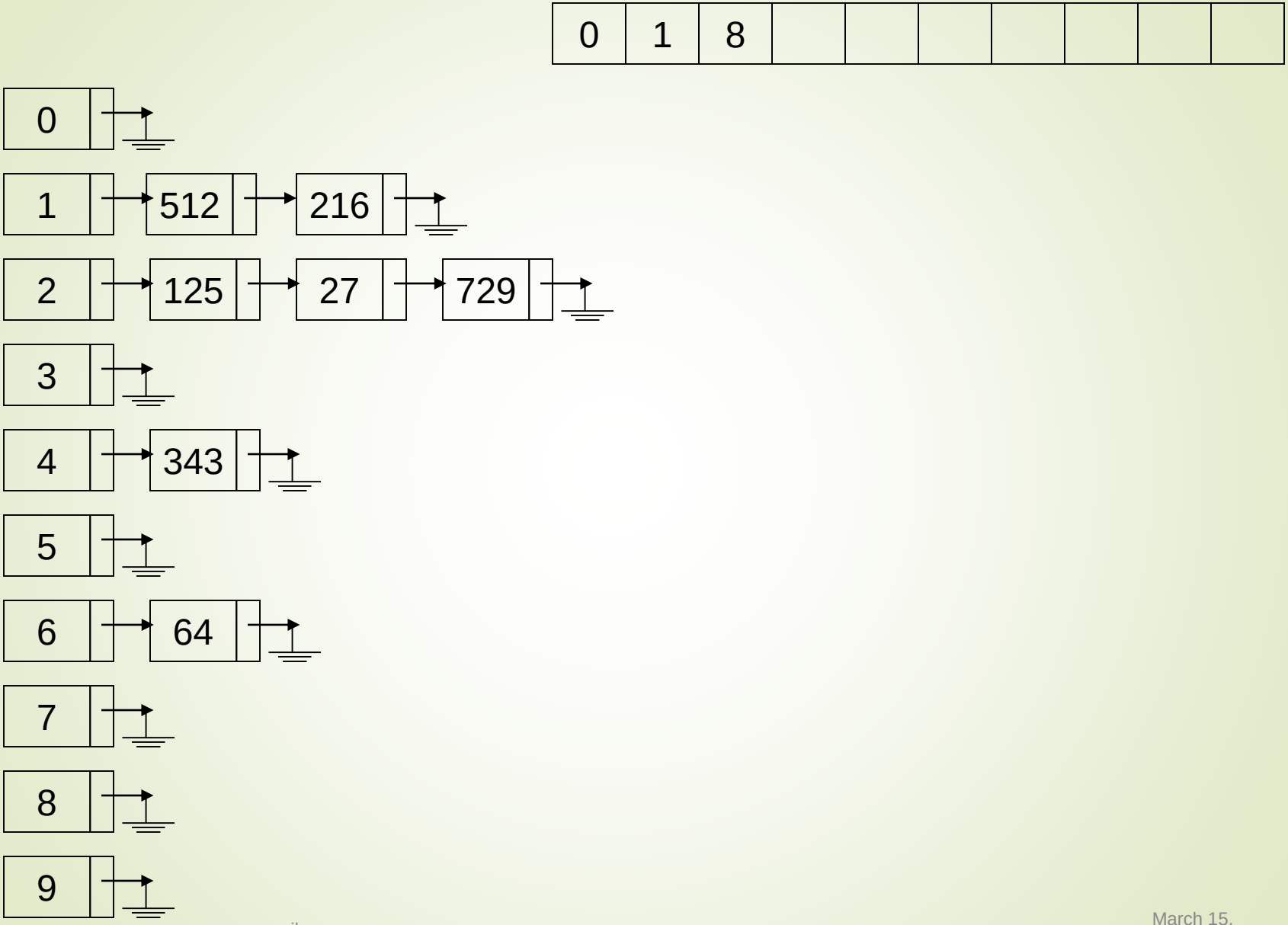
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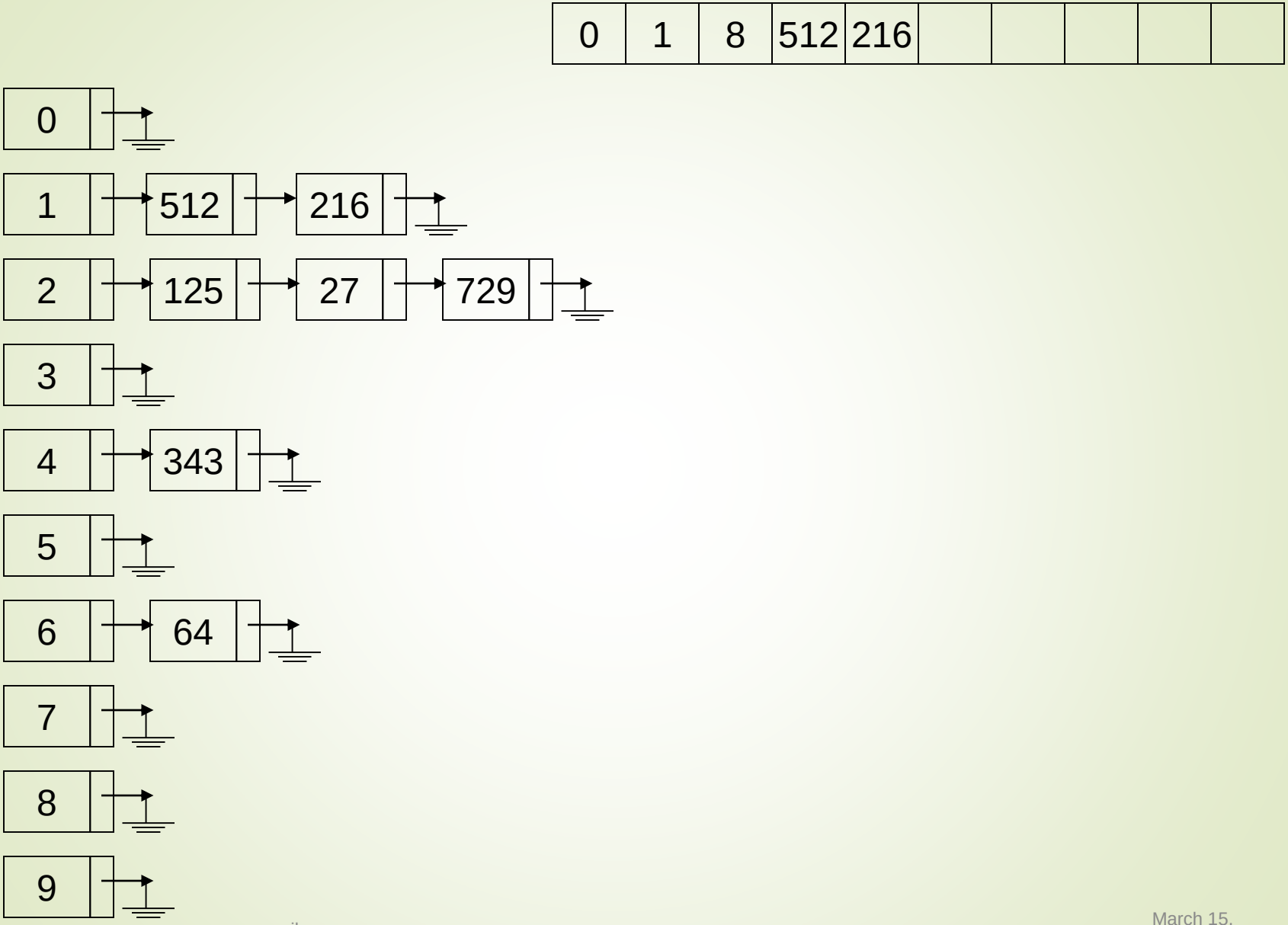
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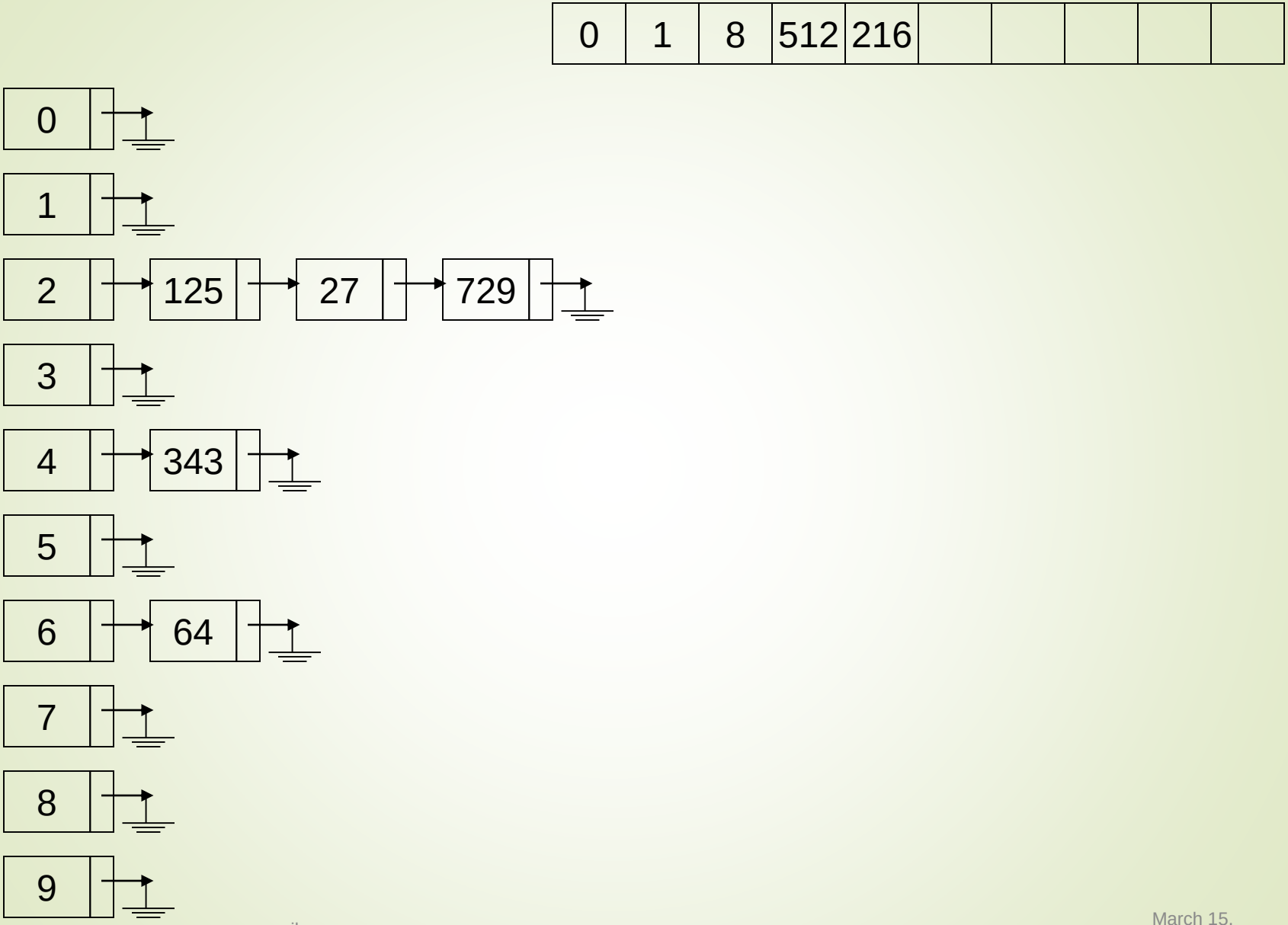
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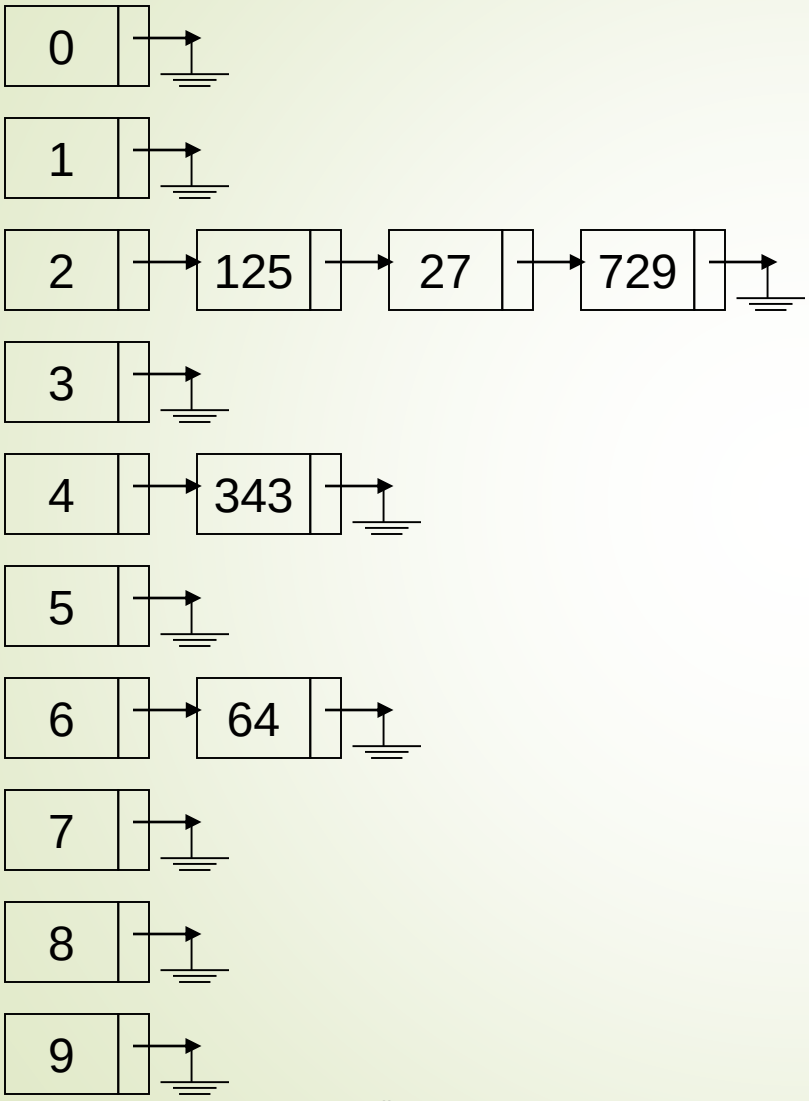

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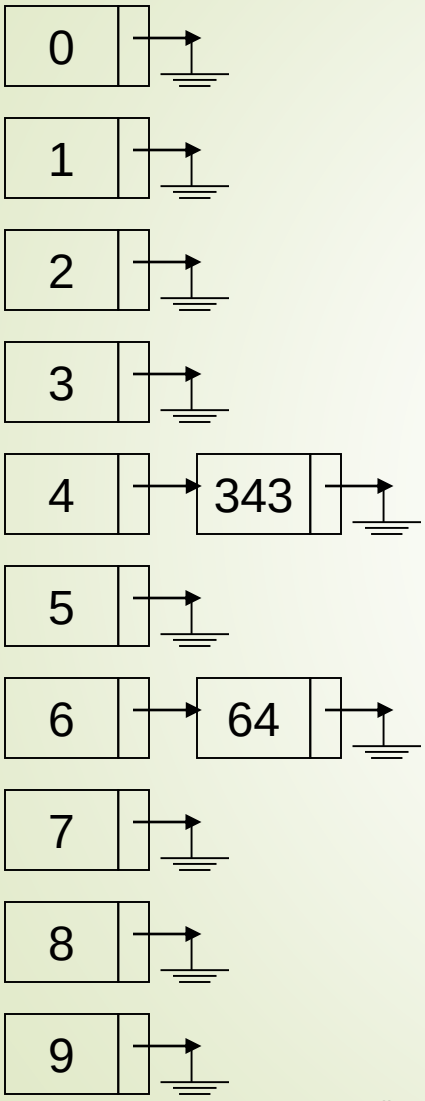

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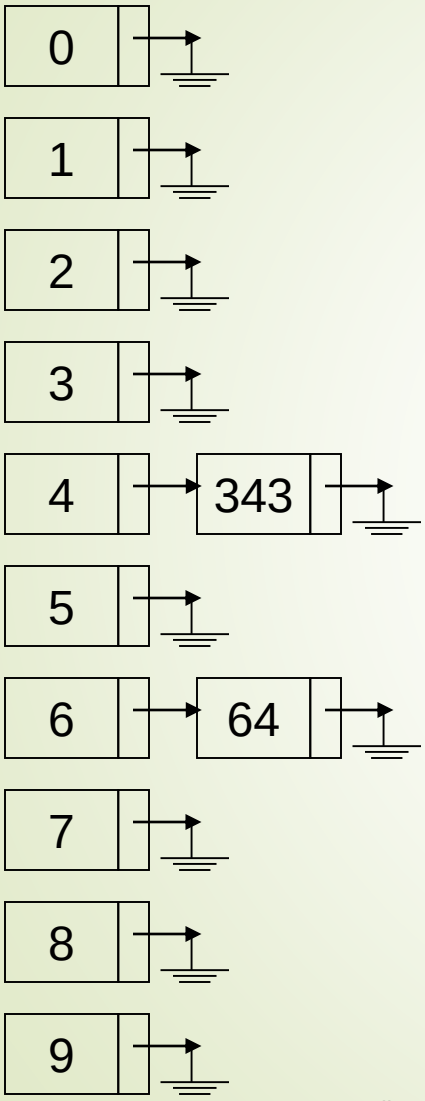

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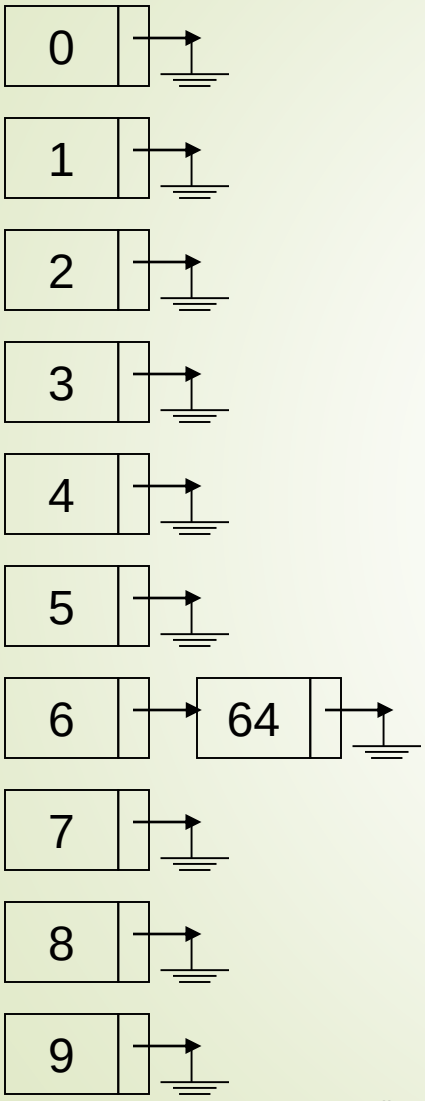

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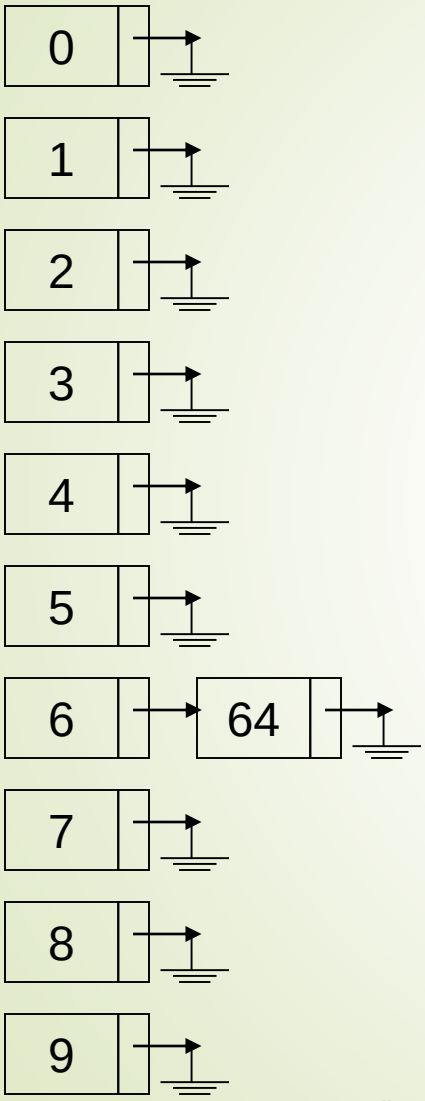

Pass 3

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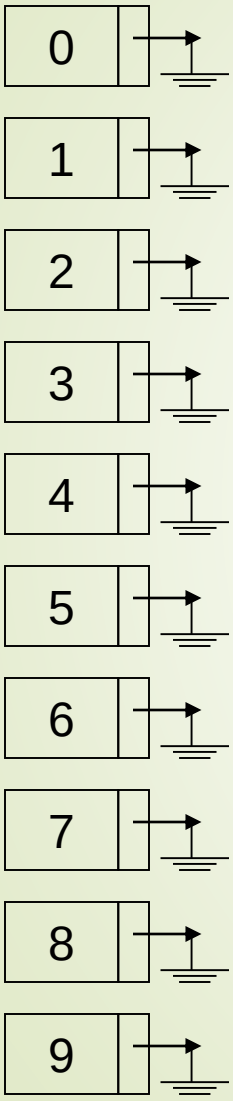

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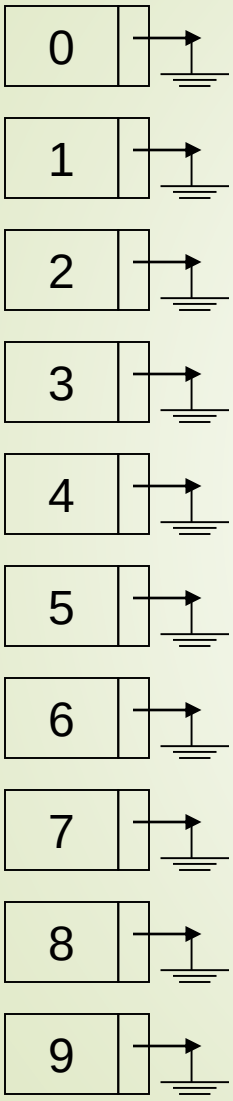

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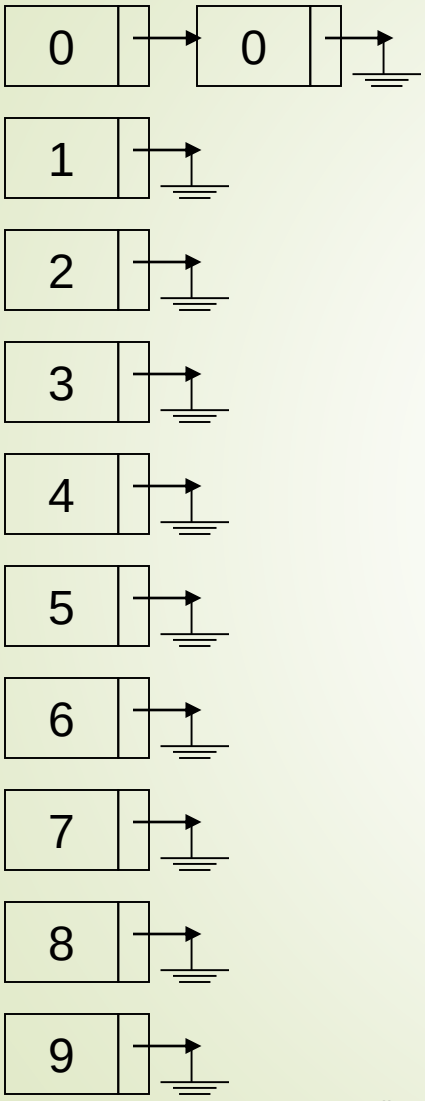

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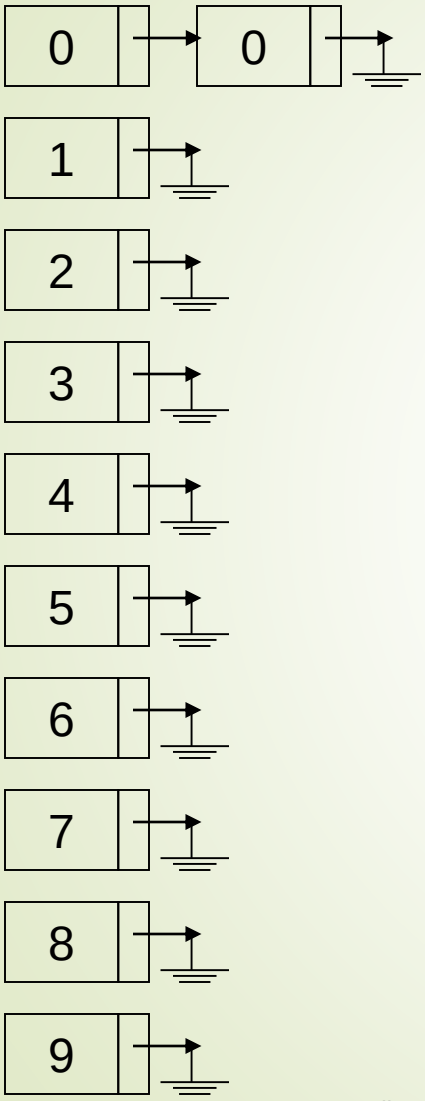

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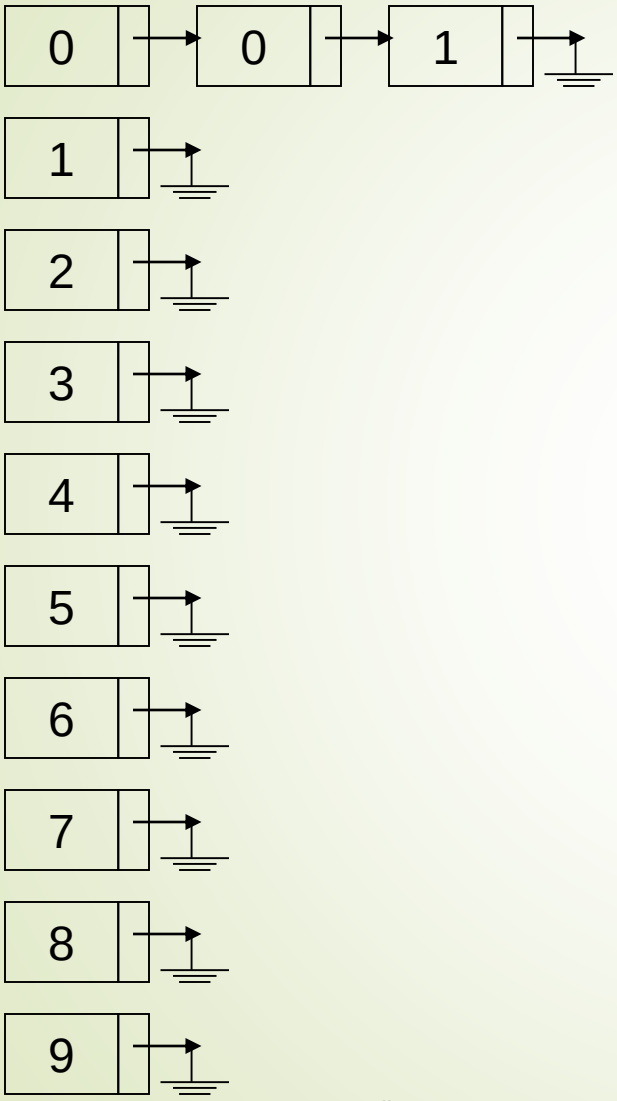

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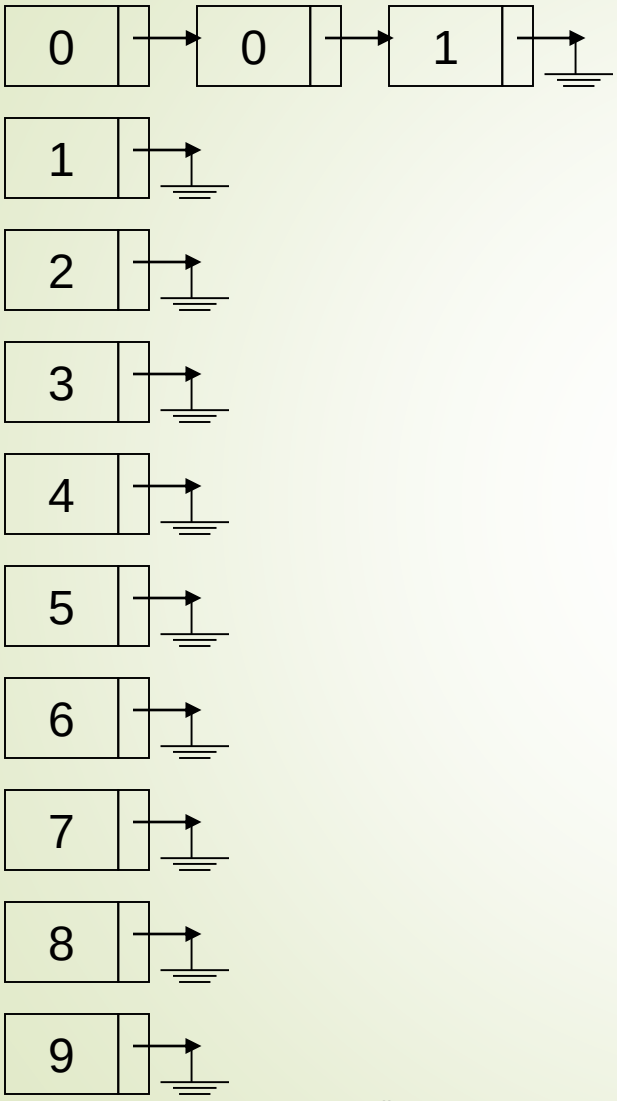

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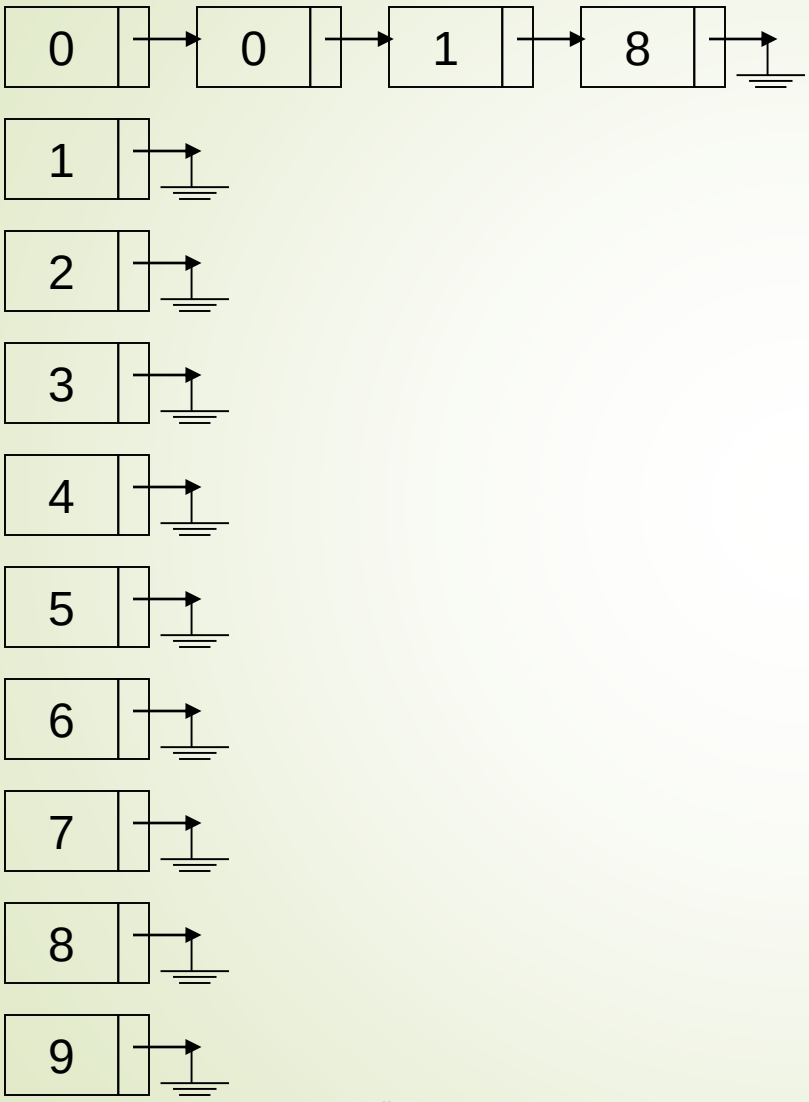

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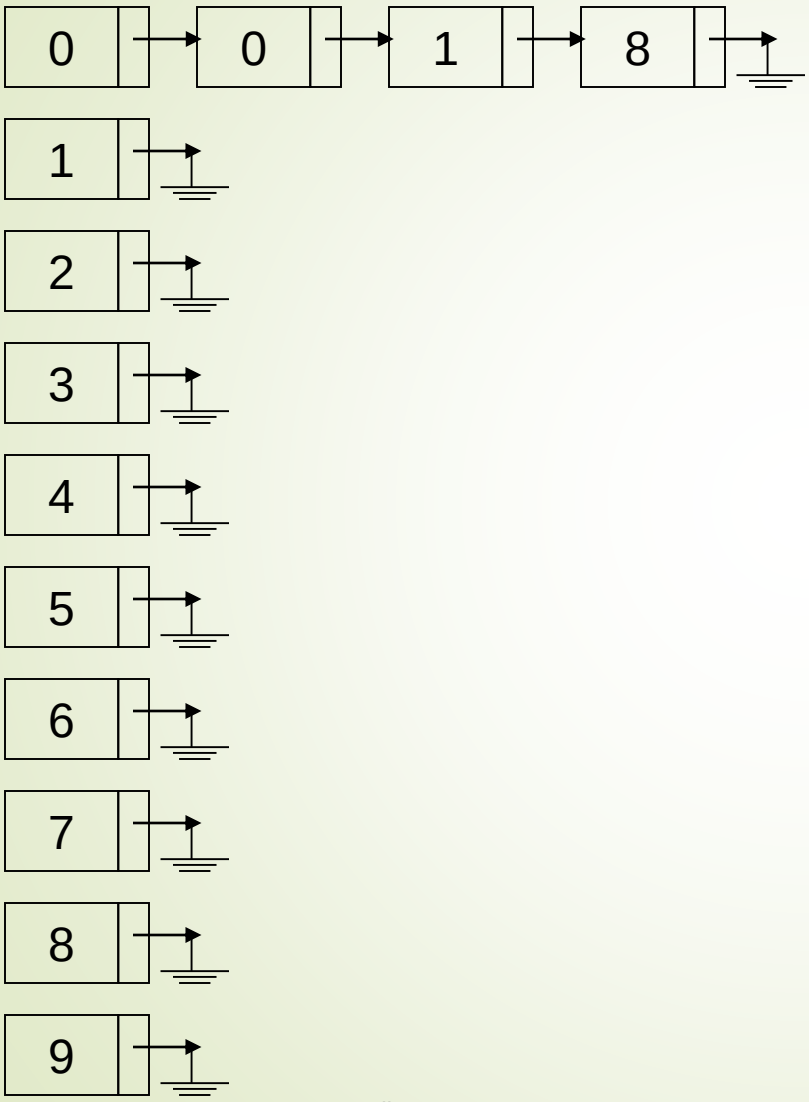

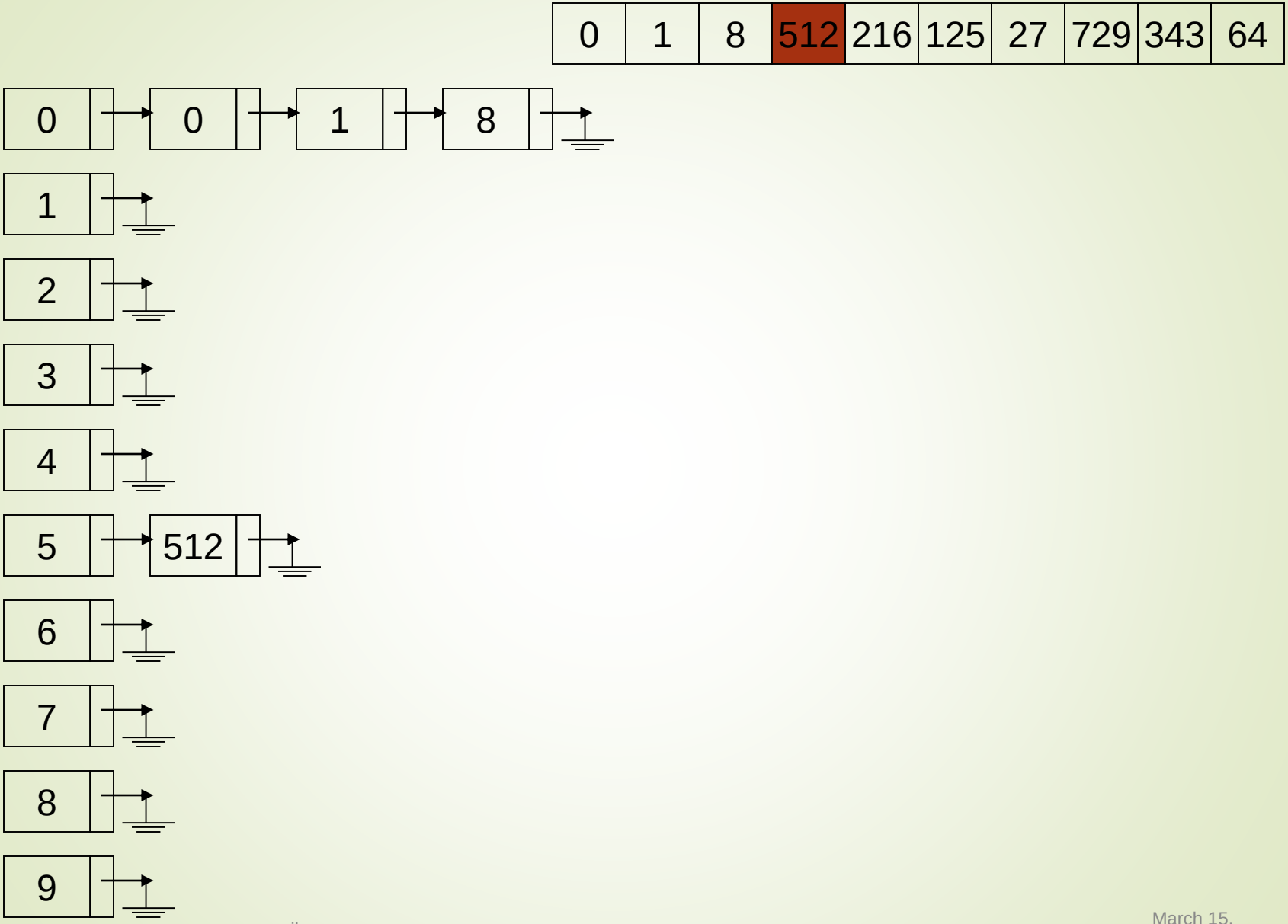
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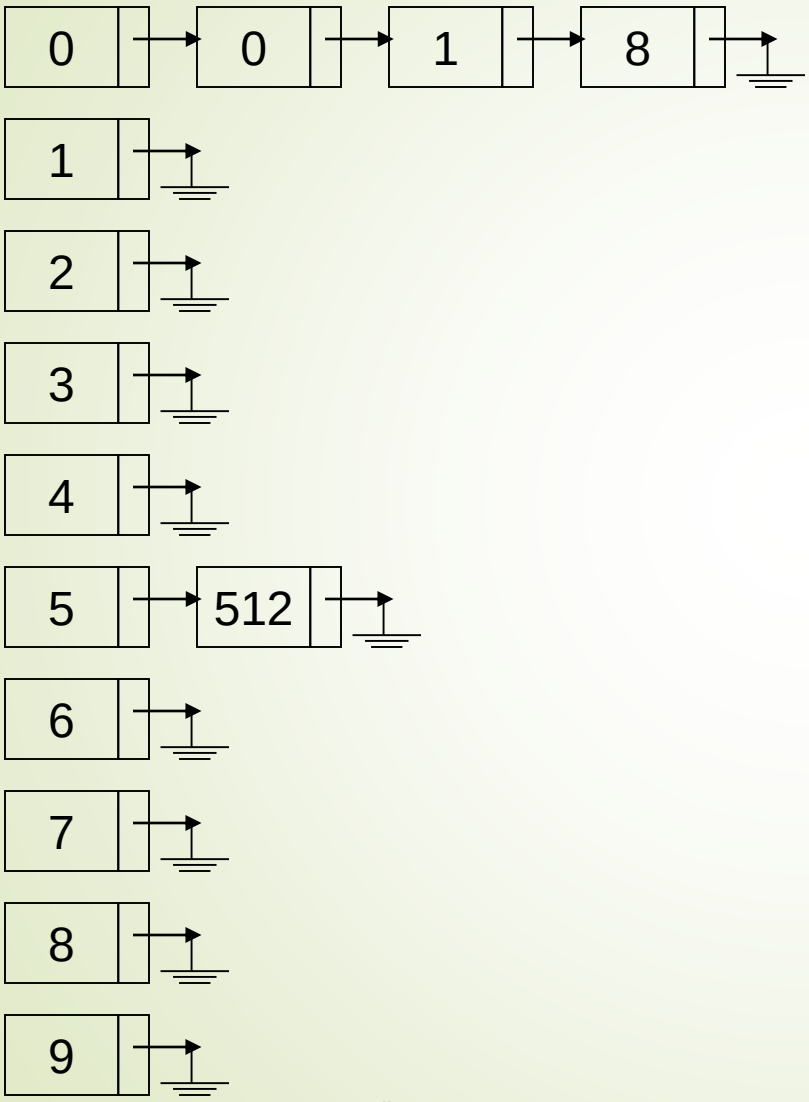

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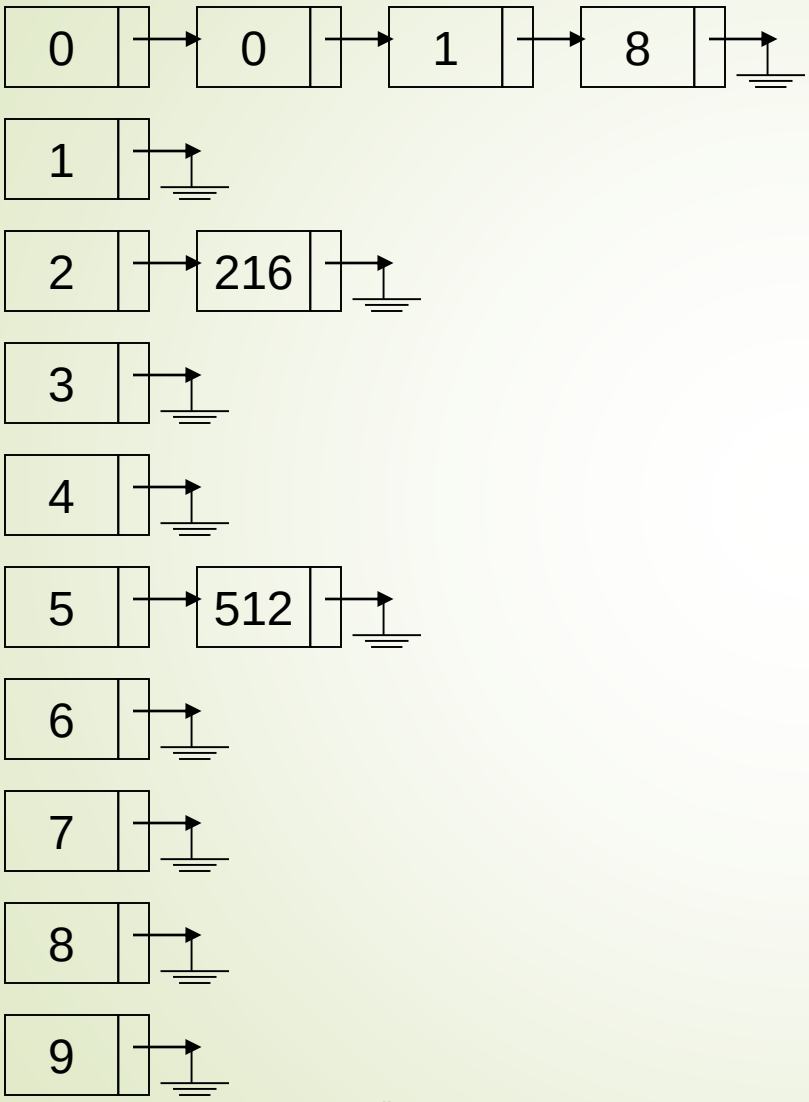

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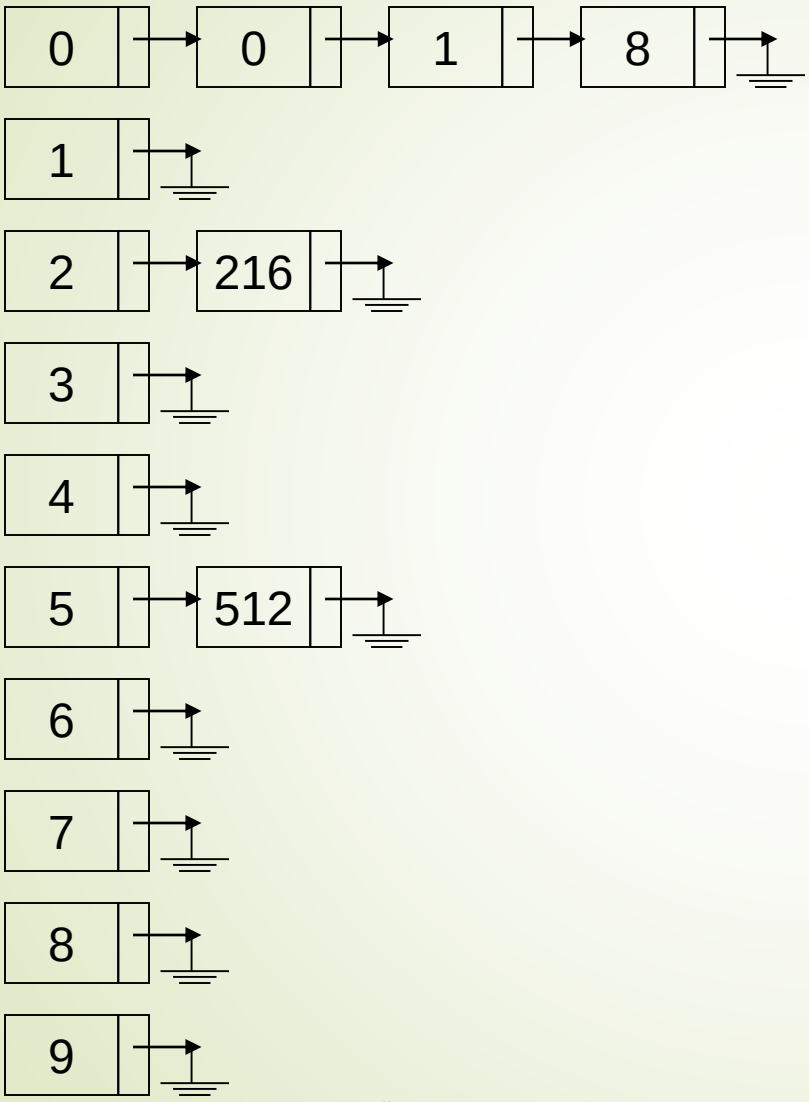

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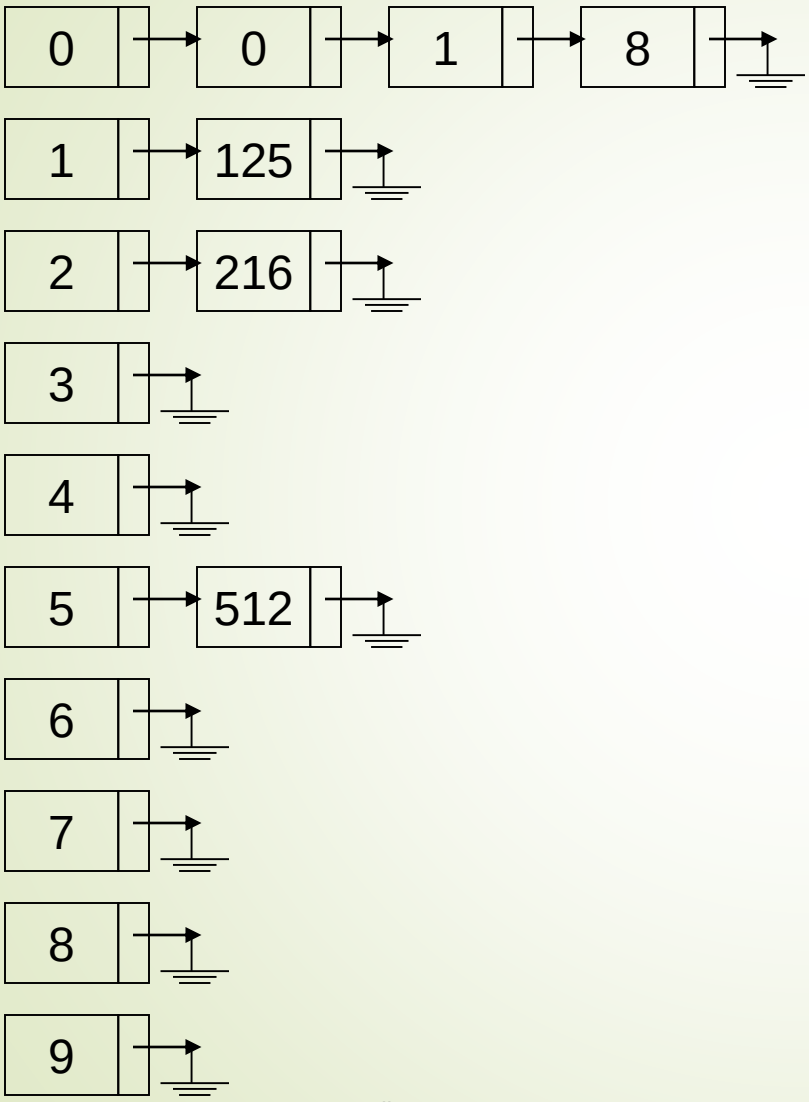

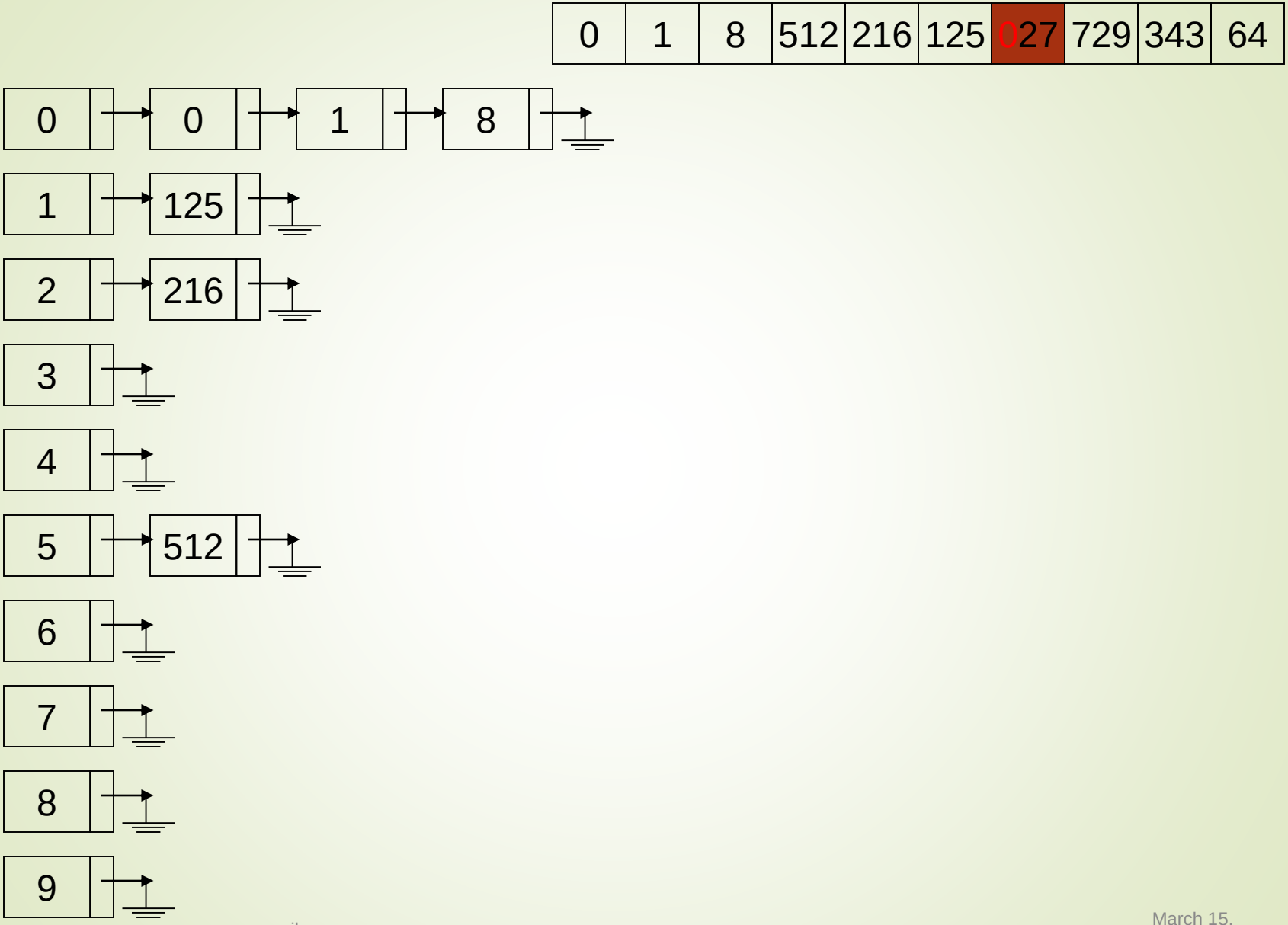
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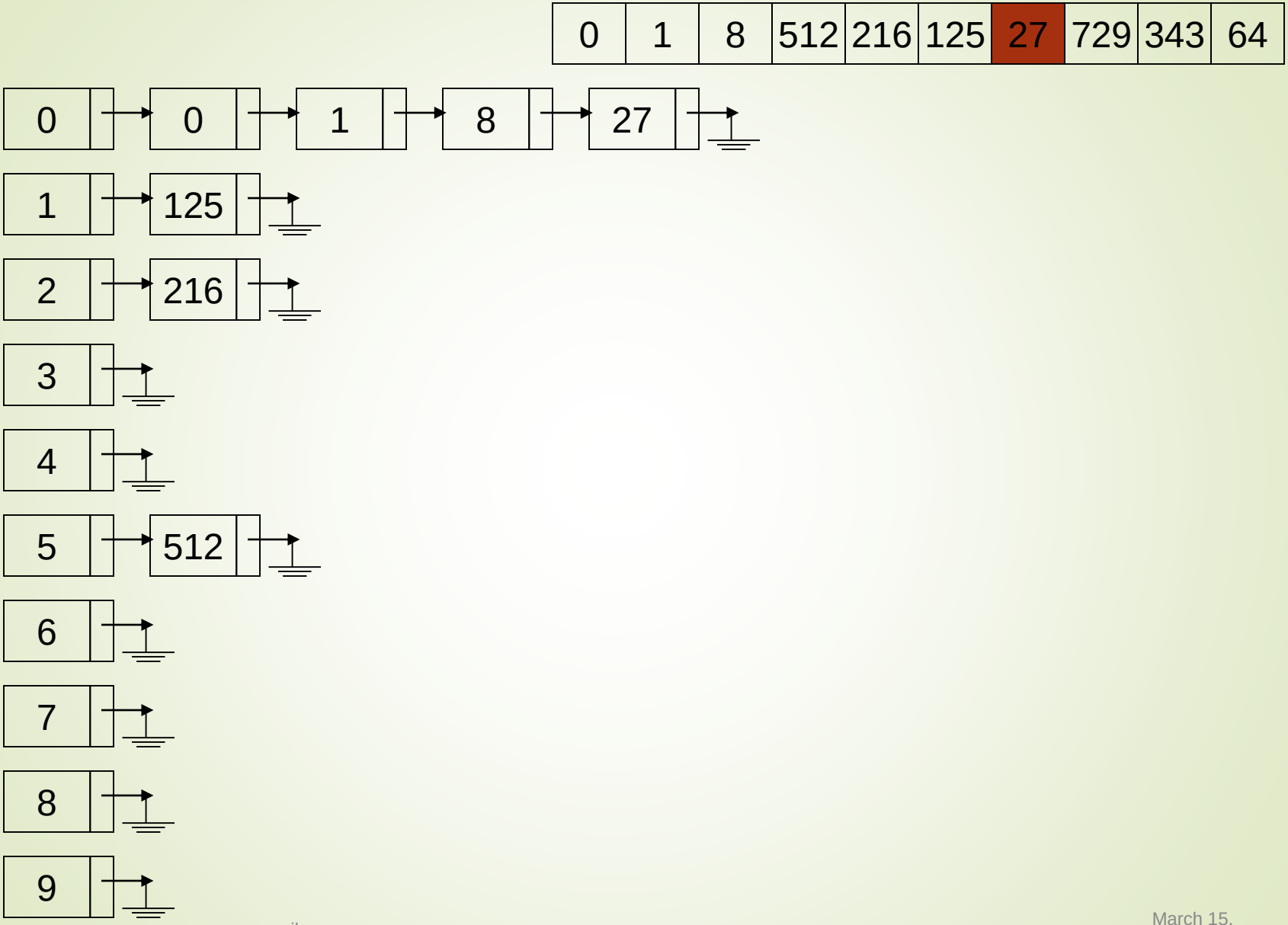
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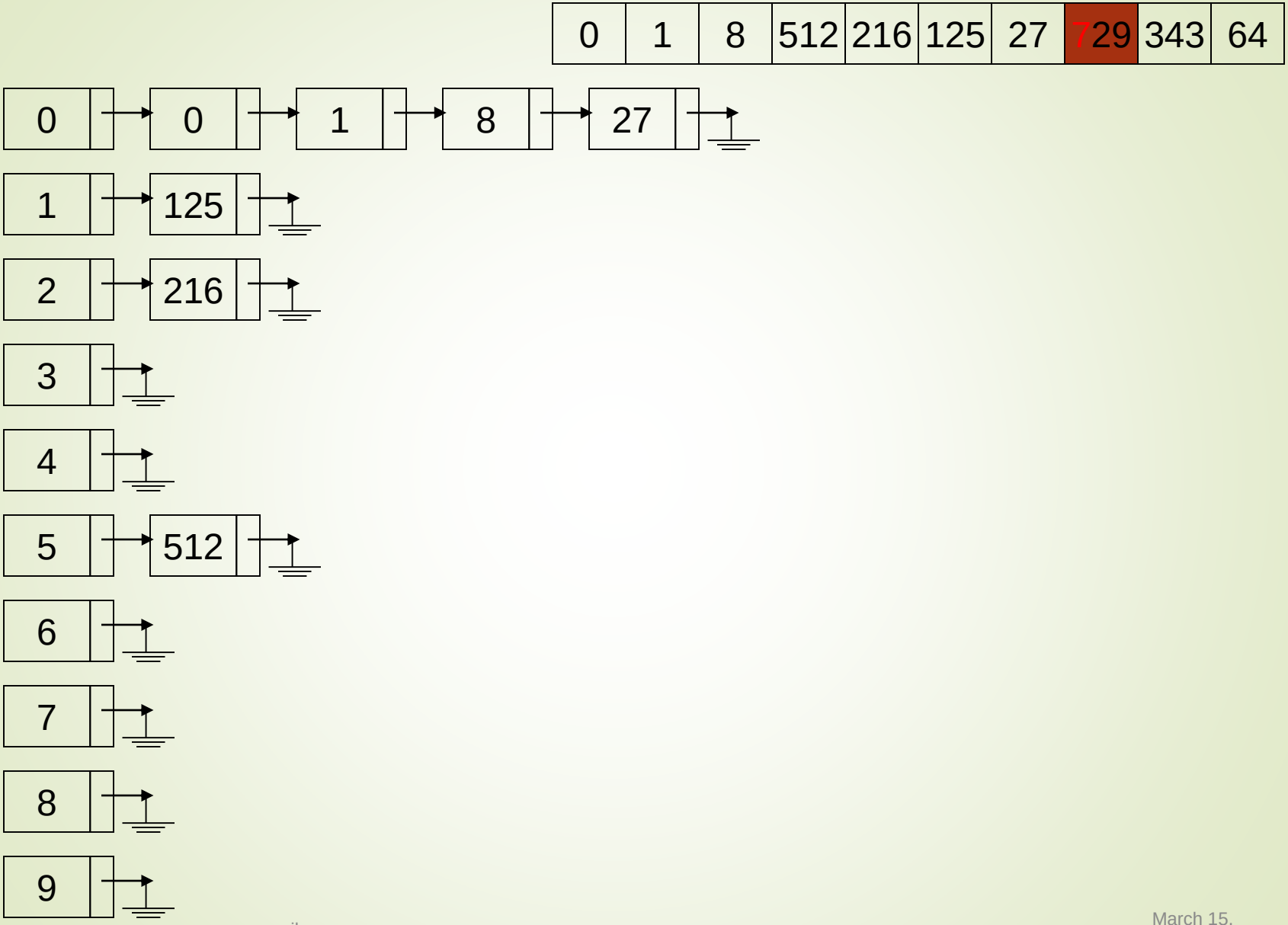
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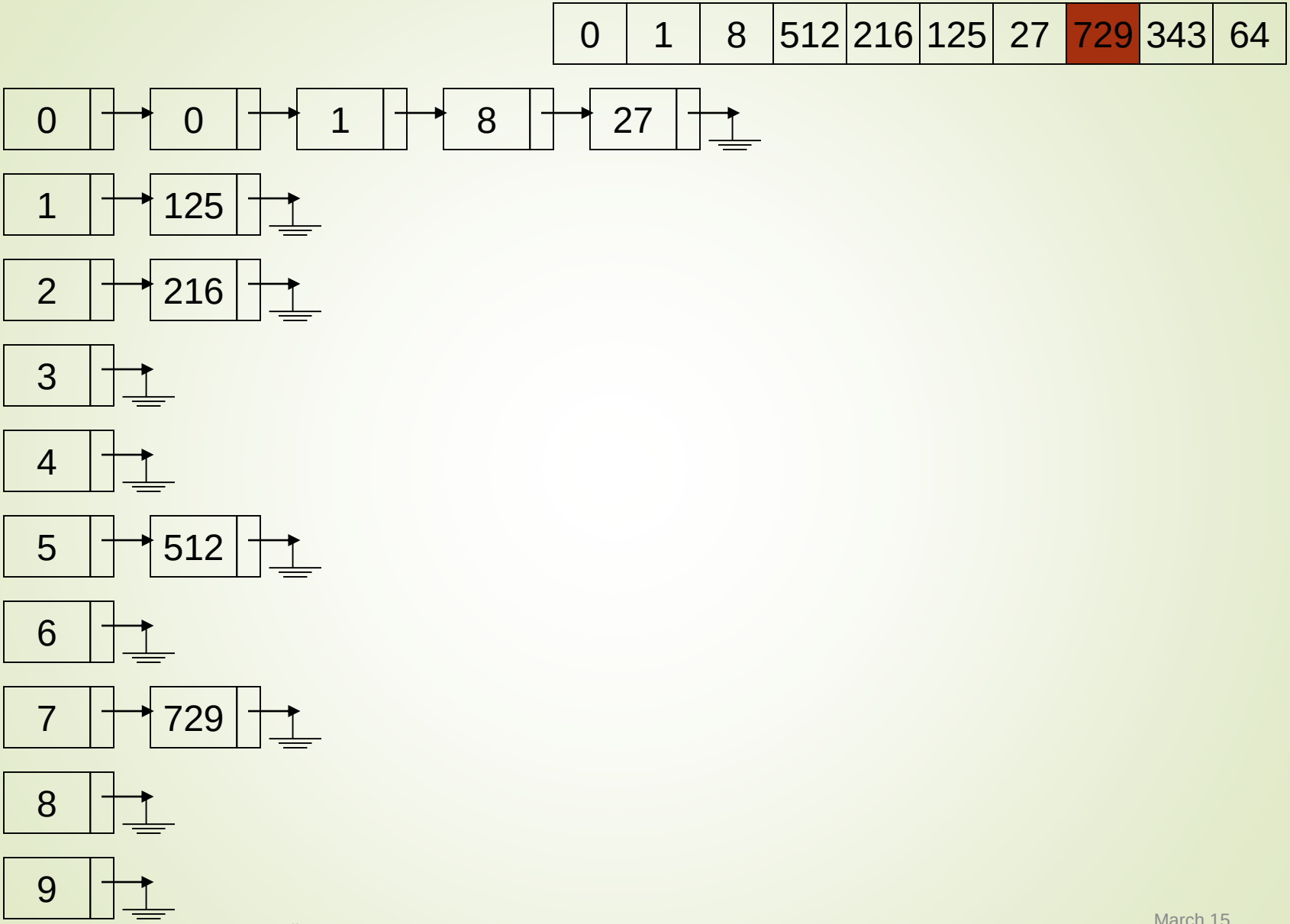
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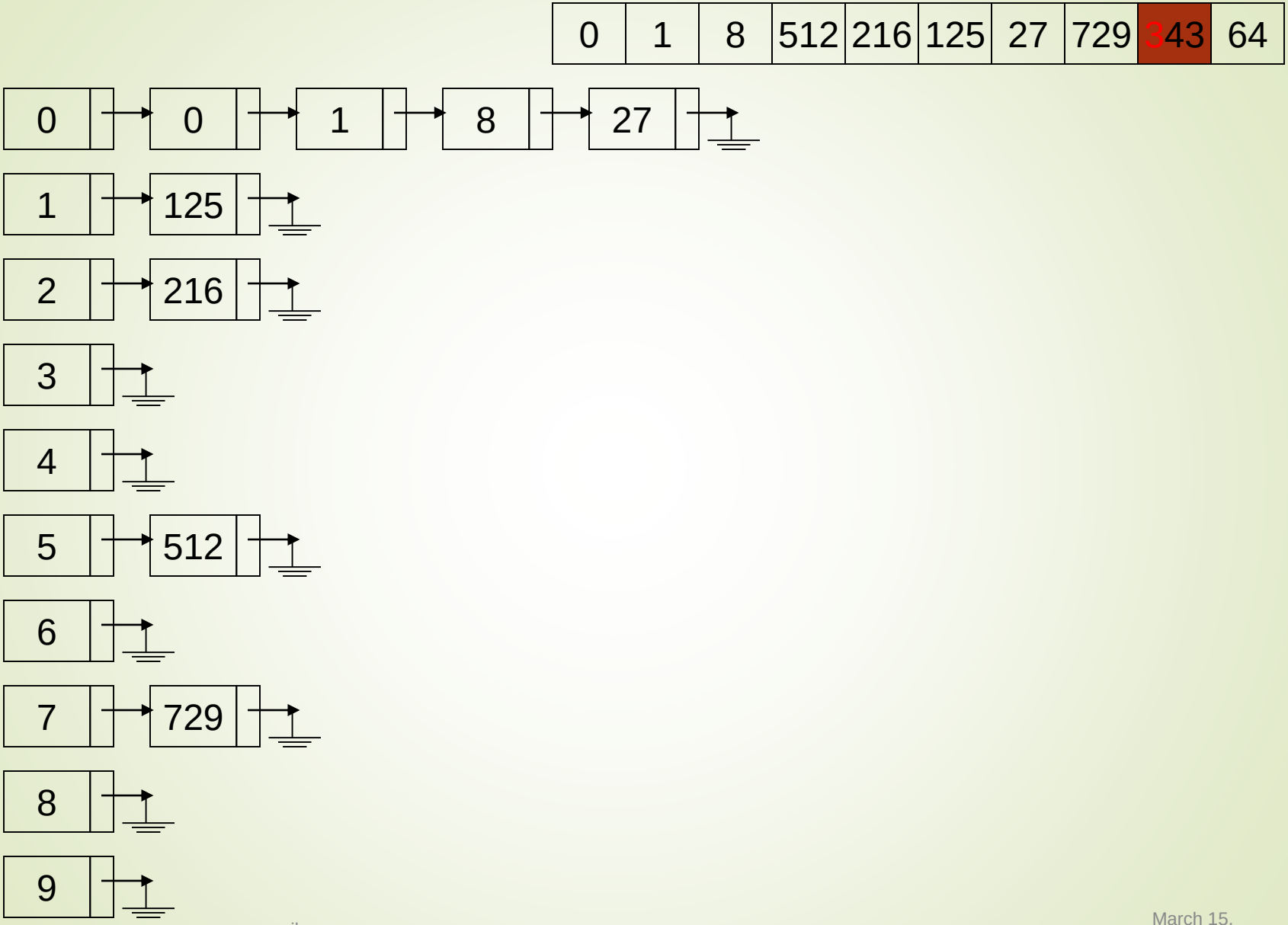
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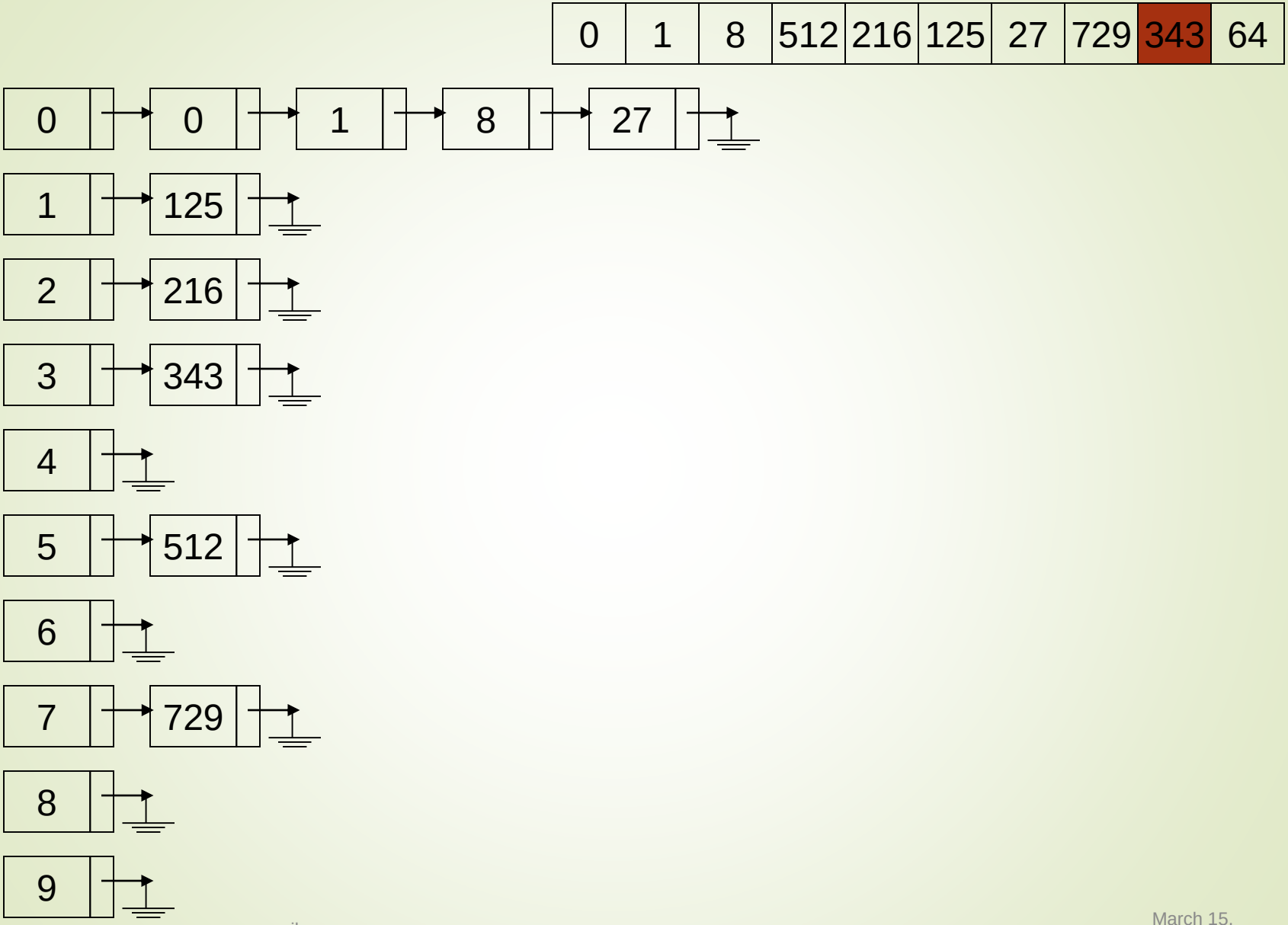
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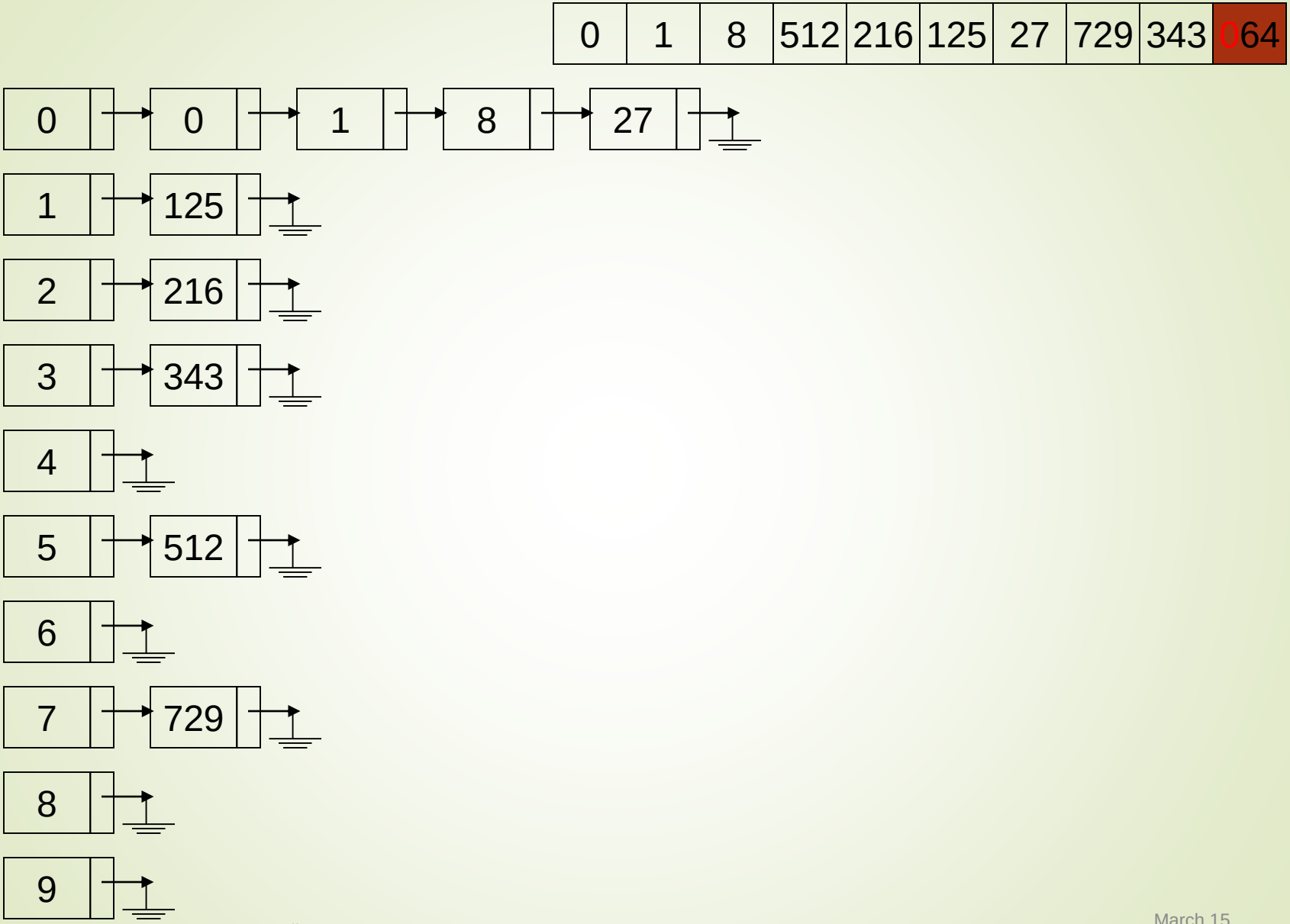
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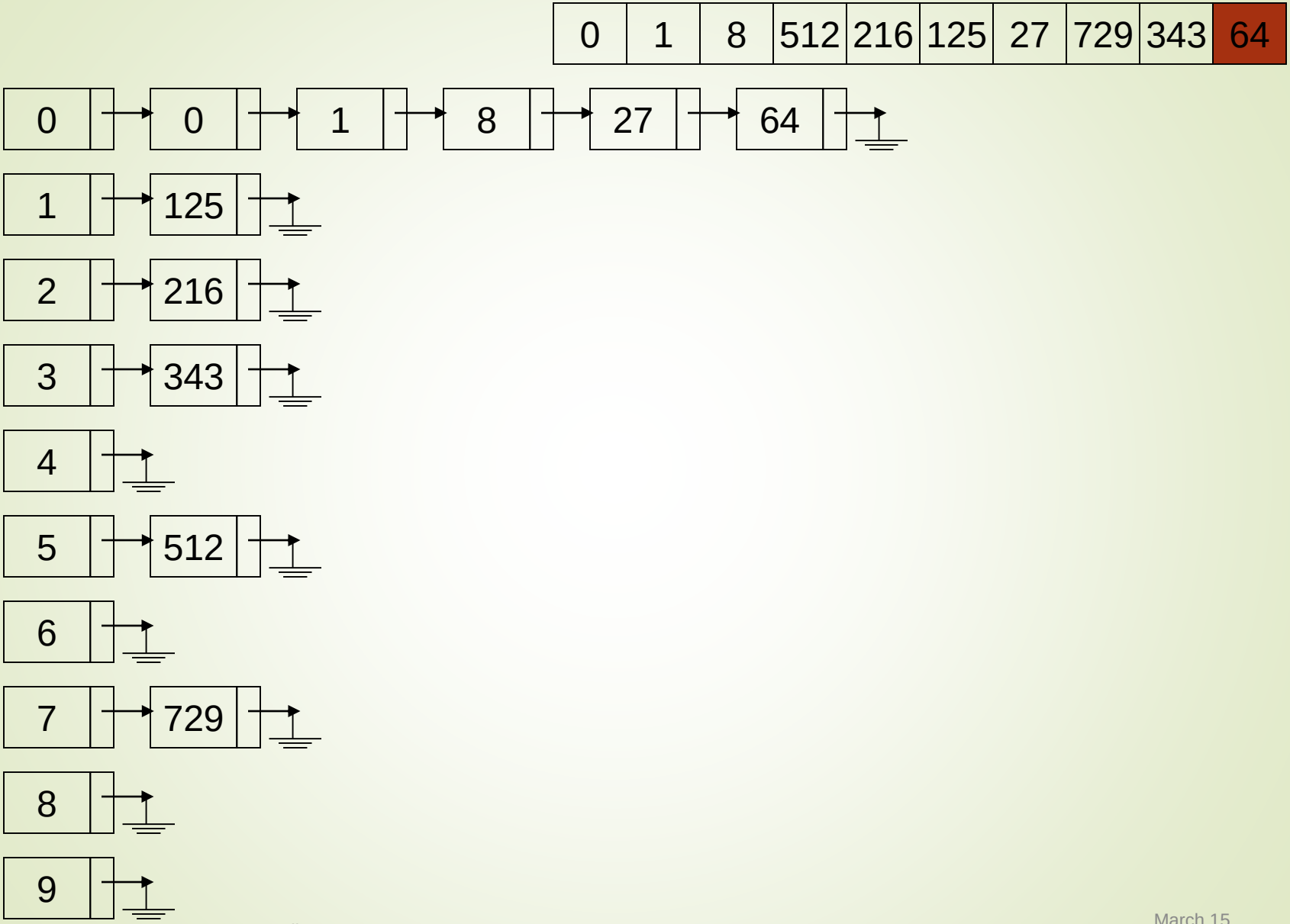
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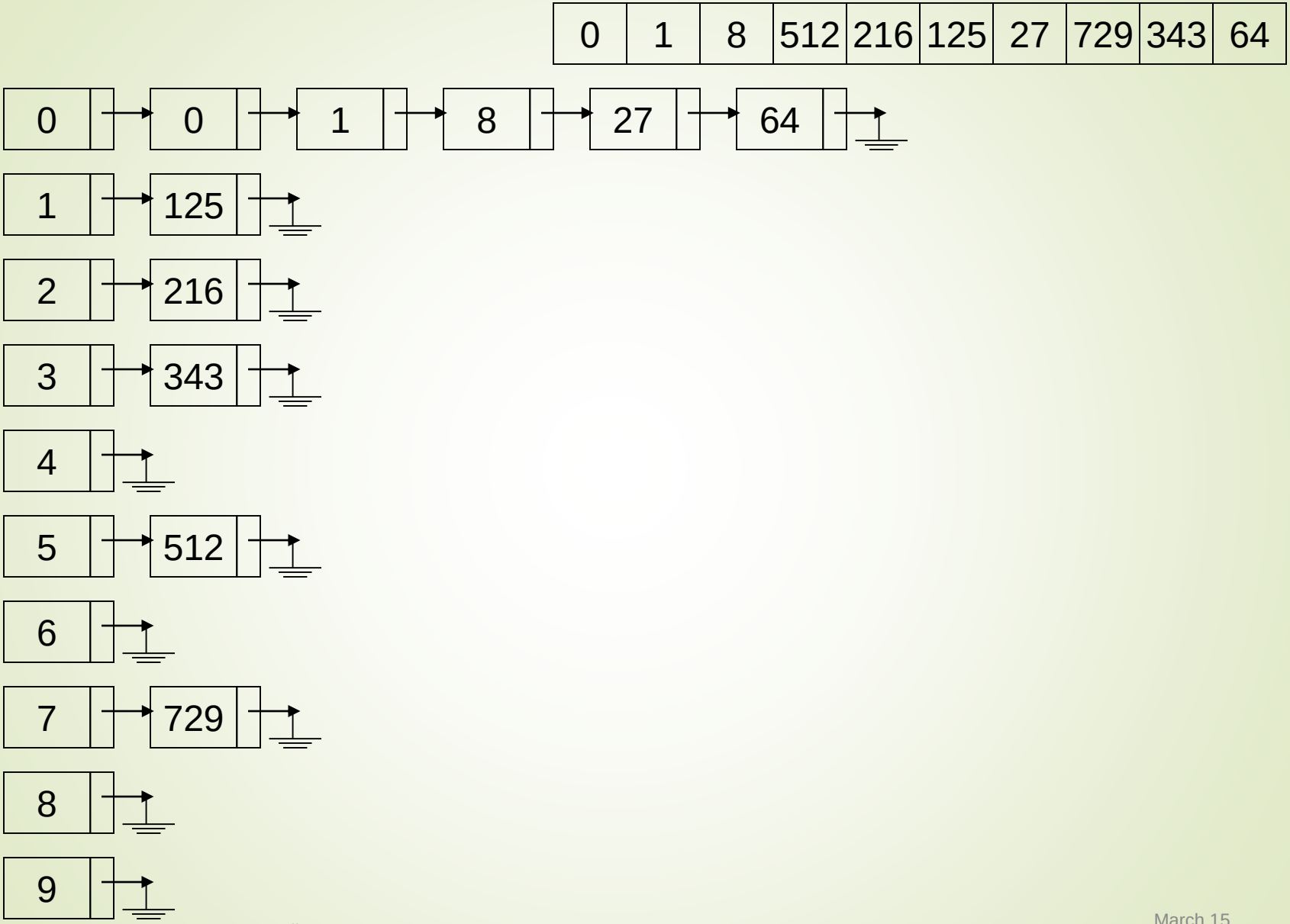
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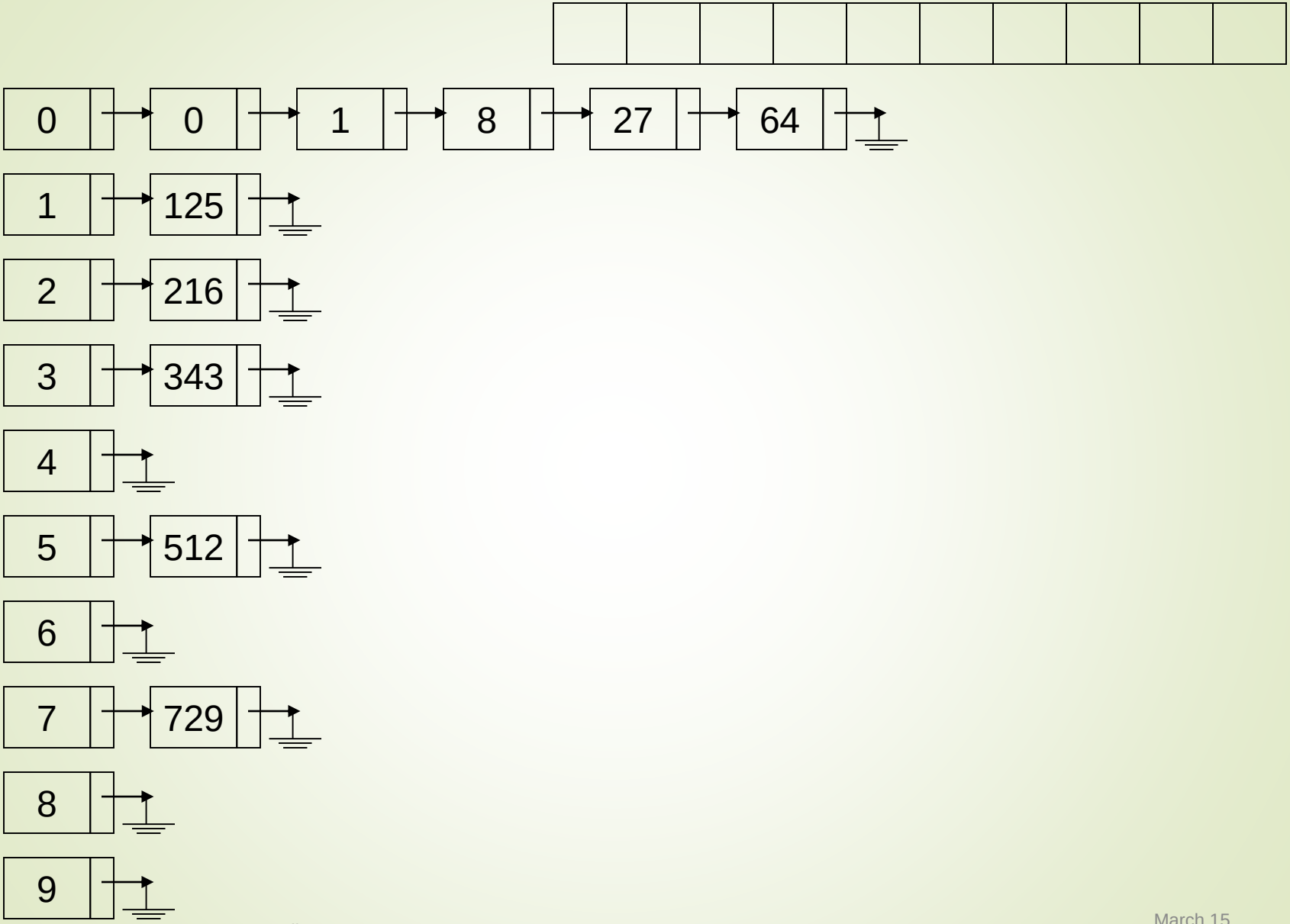
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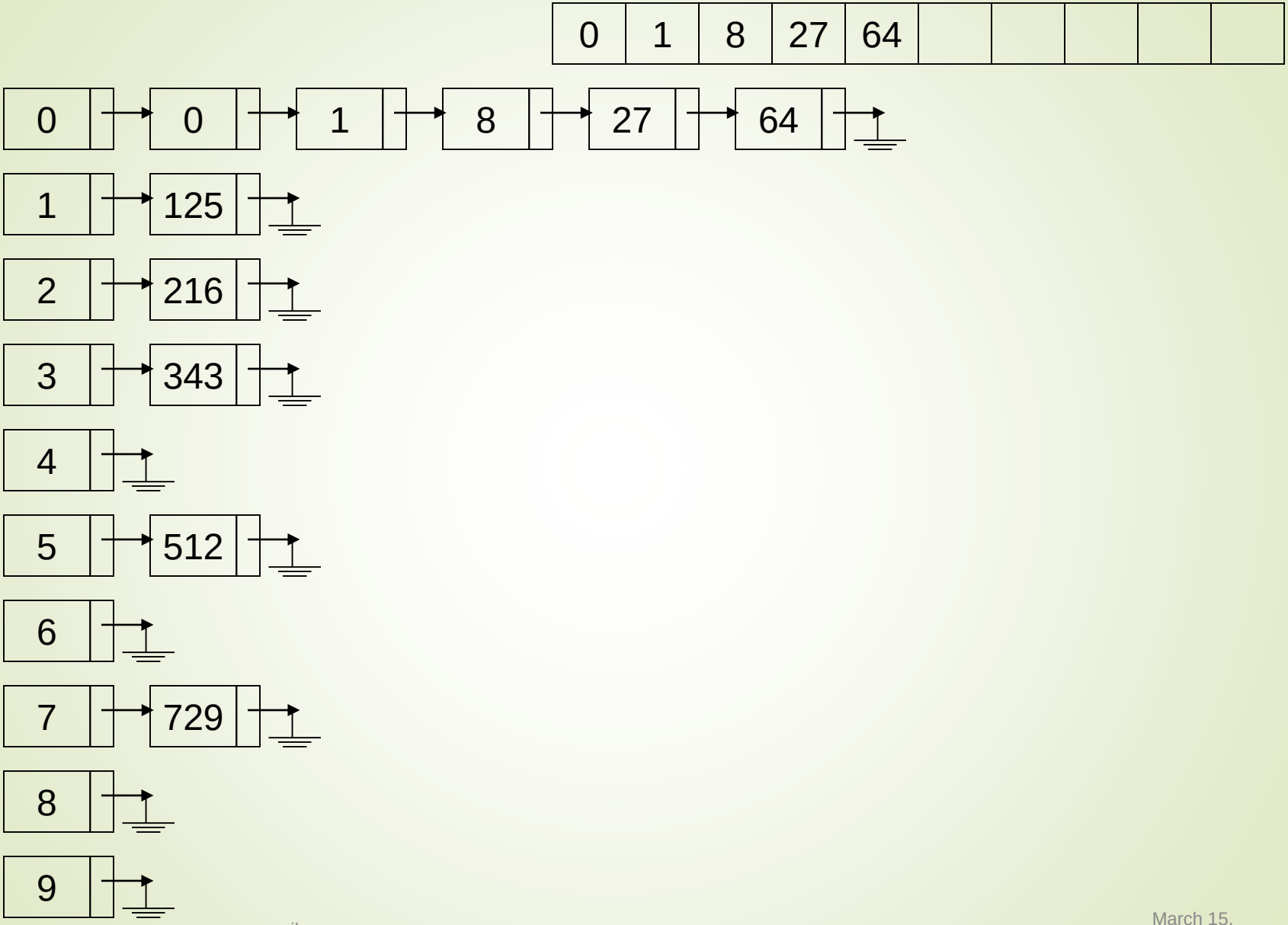
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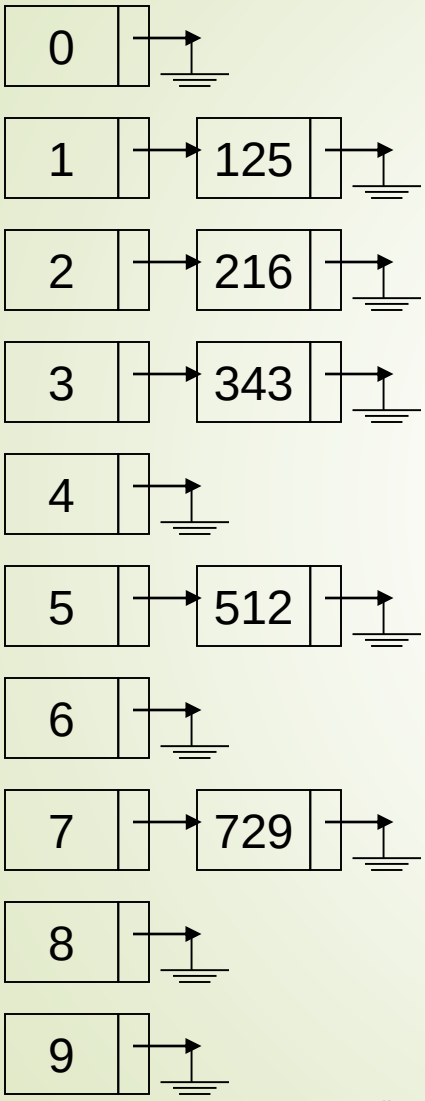

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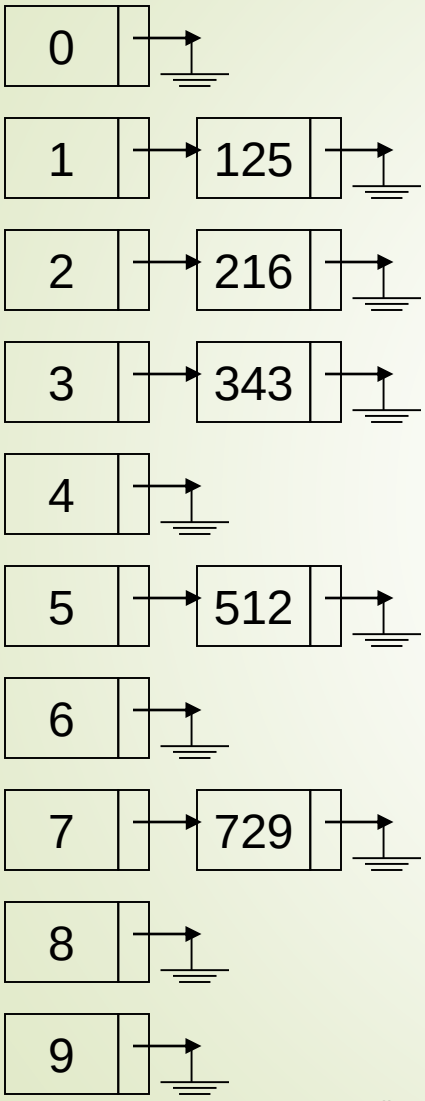

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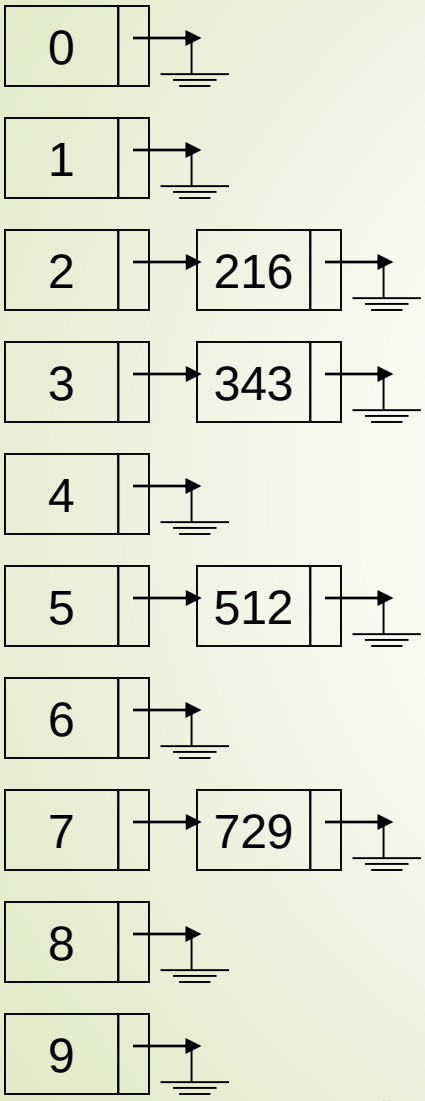

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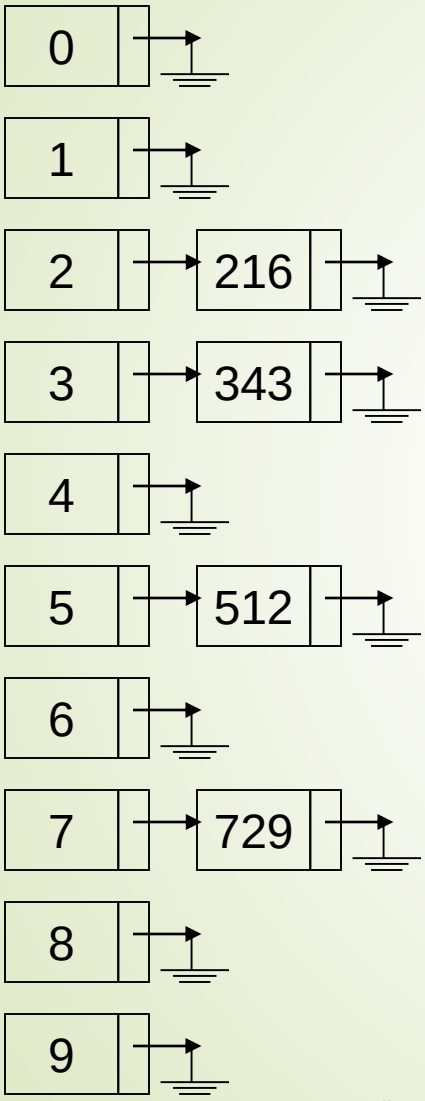

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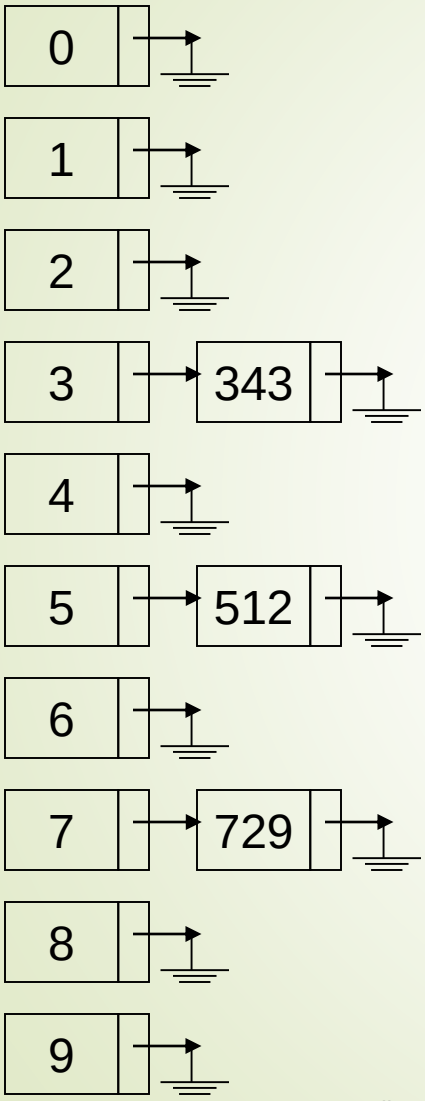

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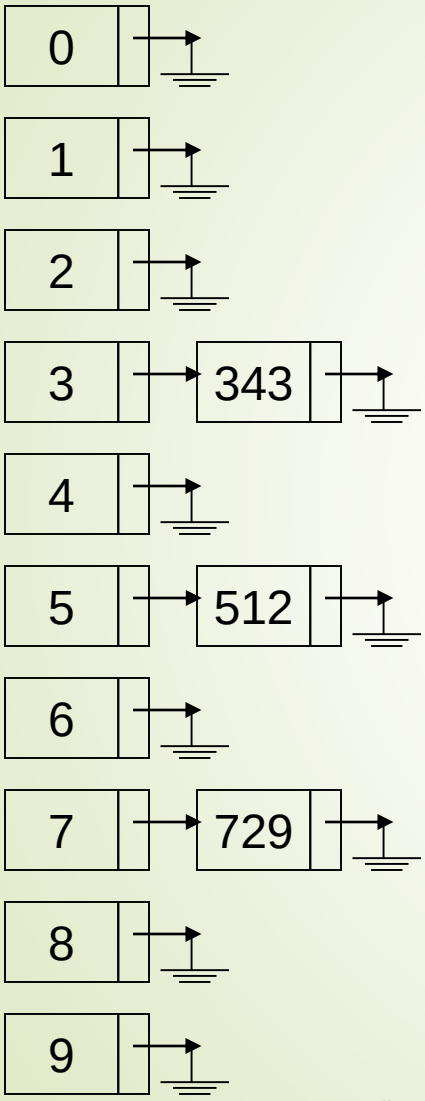

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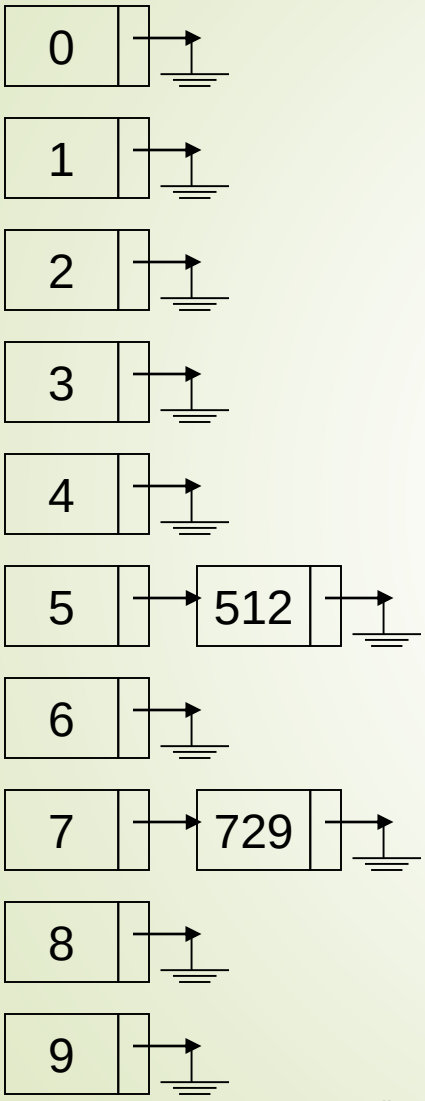

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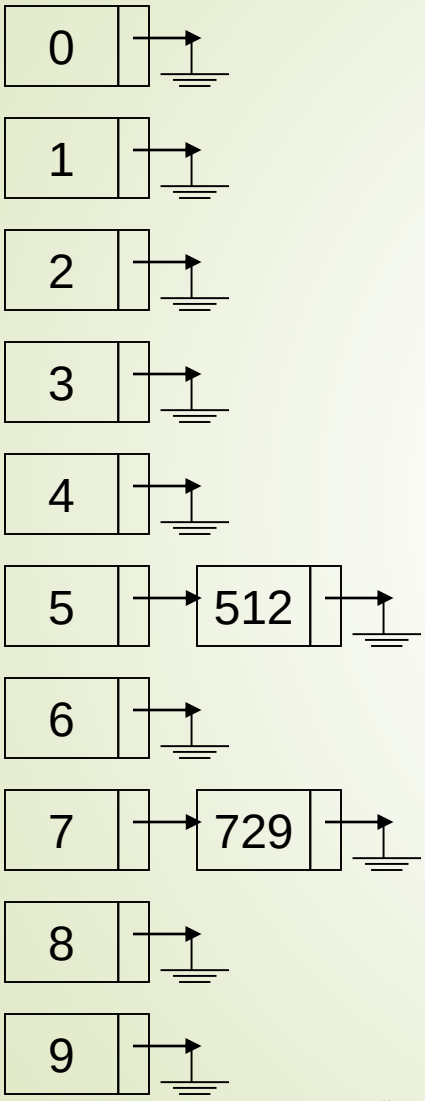

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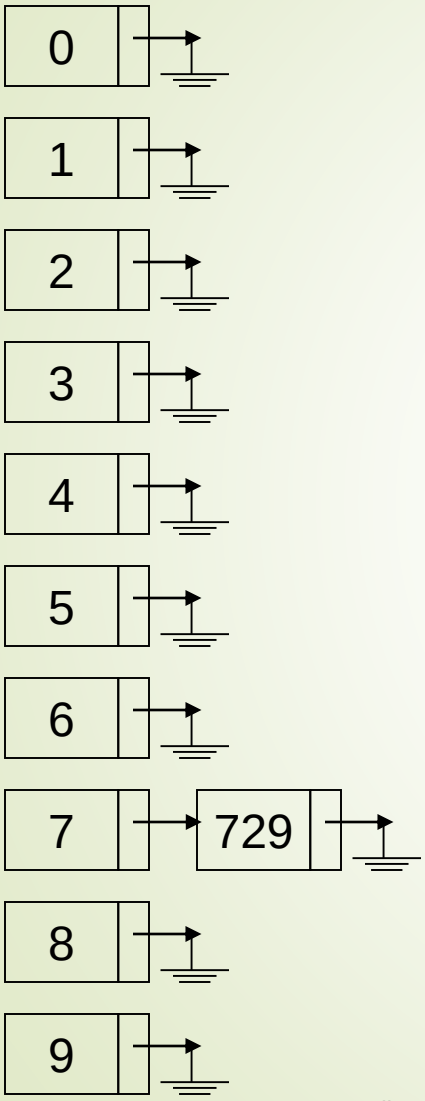

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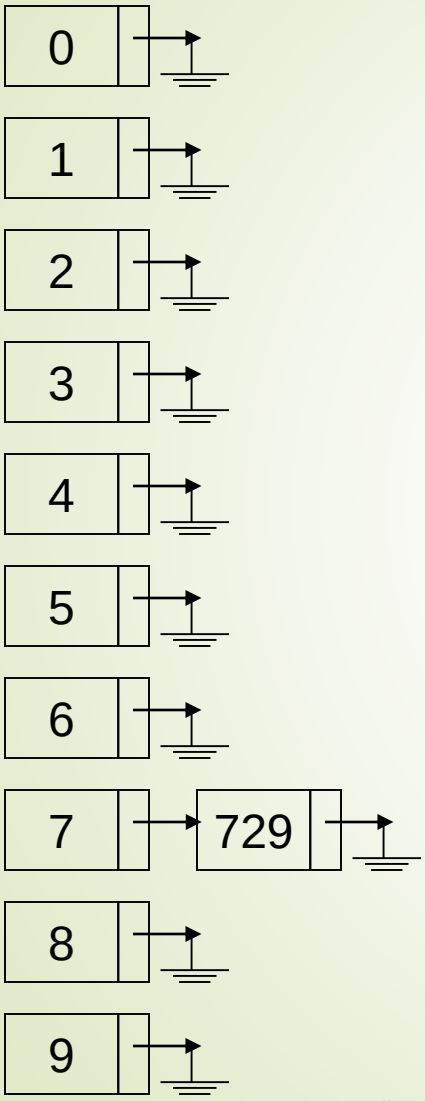

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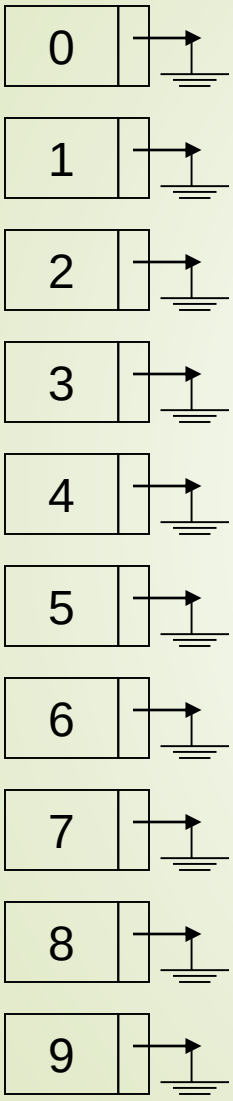

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