Implementing ArrayList

1. Announcements
   a. Don’t come to class
      i. No classes Friday (Winter Carnival)
      ii. No office hours Thursday
      iii. No lecture Monday
   b. Do the reading
      i. (Why it appears out of synchrony)

2. Last Time
   a. Map
   b. Generics
   c. Generic Linked List
   d. Dynamic Array

3. What’s it going to cost?
   a. Counting seconds
   b. Asymptotic behavior

4. Your first clever data structure
   a. Rewriting setSize
   b. Amortized analysis

<table>
<thead>
<tr>
<th>Operation</th>
<th>Trivial ArrayList</th>
<th>Good ArrayList</th>
<th>LinkedList</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert beginning</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Insert end</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get length</td>
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<td></td>
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<tr>
<td>Get $i^{th}$ element</td>
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</tbody>
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1 Expected, amortized time