• Pick up your exam

  • if there is a “total” do NOT assume that it is correct

• Check that you have all of your points

• Check your grade on Sakai

• If any of these are wrong, please let us know ASAP so that we can fix it
Today

- The exam
- Intro to DNA assignment
- Back to linked lists
The Exam

Exam Grades

<table>
<thead>
<tr>
<th>Points</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.6</td>
<td>10</td>
</tr>
<tr>
<td>0.7</td>
<td>5</td>
</tr>
<tr>
<td>0.8</td>
<td>22</td>
</tr>
<tr>
<td>0.9</td>
<td>46</td>
</tr>
<tr>
<td>1</td>
<td>37</td>
</tr>
</tbody>
</table>
Question 0

![Bar Chart]

- People
- Points

Friday, October 19, 12
Question 1

![Bar Chart for Question 1]

- People:
  - 0
  - 20
  - 60
  - 80
  - 120

- Points:
  - 0
  - 2
  - 4
  - 6

Friday, October 19, 12
Question 2
Question 3

![Bar chart for Question 3](image)
Question 4

![Bar Chart for Question 4]

The chart shows the distribution of points among people. The x-axis represents points, ranging from 0 to 6, and the y-axis represents the number of people. The data indicates that the highest number of people (120) scored 6 points, while the number of people decreases as the points decrease.
Question 5

![Bar chart showing the distribution of points with a peak at 8 points. The x-axis represents points ranging from 0 to 8, and the y-axis represents people ranging from 0 to 100. The chart shows a significant increase in people from 0 to 8 points.]
Question 6

![Bar Chart for Question 6](chart.png)
Question 7

![Question 7 Chart]

- X-axis: Points
- Y-axis: People

The chart shows the distribution of points among people, with a peak at 8 points.
61  tgatagcagc  ttctgaactg  gttacctgcc  gtgagtaaat  taatatatat  ttgactttagg
121  tcactaaata  ctttaaccaa  tataggcata  gcgcacagac  agataaaaaat  tacagagtac
181  acaacatcca  tgaacgcgat  tagcaccacc  attaccacca  ccacatccat  taccacaggt
241  aacggtgcgg  gctgacgcgt  acaggaacca  cagaaaaaag  cccgaccttg  acagtgcggg
301  cttttttttt  cgaccaaaagg  taacgaggta  acaacattgac  gagtgttgaag  gtccggcggt
361  acatcagtgg  caaatgcaga  acgttttctg  cgttgctccg  attattctgga  aagcaatgcc
421  aggccagggg  aggtggccac  ctctcctctct  gccccgcaca  aatacaccaa  ccacctggtg
481  gccgatgattg  aaaaaaccat  tagcggccag  gatgctttaac  ccaatatcag  cgatgcggaa
541  cgtatatattt  cccaactttt  gacgiggactc  cccgggccc  agccggggtt  cccgctgcccgc
601  caattgaaaaa  ctttcgtgtaa  tcaggaattt  gcccaaaataa  aacatgtcct  gcatgccatt
661  agtttttgtgg  ggcatgtgccc  ggataagcct  aacgctgccc  tgattttgcc  tggcgagaaa
721  atgtcgtcagc  ccattatggc  cggcggtatta  gaagcgcgcg  gcacacacgt  tactgttattc
781  gatccggctgc  aaaaaaaaaa  ggaggctggc  catttgcgtg  ccatcctgga  cgatattgctt
841  gagttccaccg  gcccgtattg  ggcaagggcgc  atttccggctg  atccatgtgt  gtctgatggca
901  gttttccaccg  cccgtatatg  aaaaagggca  cttgtgtgtgct  tggagcgcaaa  cgggttccgac
961  tactctgtctcg  cggctgtgtgc  tcgctgtttta  cgcgctcaattt  gttgcggagat  ttggacgagac
1021  gtggacgcccc  tcctatcttg  cgacccccgctg  caggtgccccg  atgagcagttt  gtggaggtcgtg
Restriction Enzymes

... CTG AATTTCG ...

... CTG AATTTCG ...

Friday, October 19, 12
Restriction Enzymes

... CTG AATTTCG ...

... CTG AATTTCG ...

... CTG AATTTCG ...

... CTG AATTTCG ...

G TGAT AAAAAATTTC
Restriction Enzymes

... C T G A A T T C G ...

... C T G  A A T T C G ...

... C T G  A A T T C G ...

G T G A T A A A A T T C

... C T G  G T G A T A A A A T T C G ...
Two kinds of lists

Just make a copy! SimpleStrand (Provided!)

$O(n)$ in time and space
Two kinds of lists

Just make a copy! SimpleStrand

Runs in $O(n)$

Do splicing LinkStrand

Runs in $O(b)$
“Code that already works”
public interface IMapper {

    public abstract boolean containsKey(String key);

    public abstract int get(String key);

    public abstract void put(String key, int value);

    public abstract void printAll();

    public abstract int size();

}
public interface IMapper {

    public abstract boolean containsKey(String key);

    public abstract int get(String key);

    public abstract void put(String key, int value);

    public abstract void printAll();

    public abstract int size();

}
A Map

• Can be implemented with:
  • array list
  • hash map
  • linked list

• But it still works like a map!
• Snarf the code for today’s recitation
• Complete the recitation’s assignment from the webpage