1. For the 1-year old striped bass, write the code you would need to print a report for all columns in the table so that the header for TL appeared as “Total Length (mm)” and the header for WW read as: “Wet Weight (g)”.

2. (a) What would the output be for the following code:
   ```sql
   proc sql;
   select ID, date label="Date" format=date7., tl label="Total Length (mm)" from YearTwo;
   quit;
   ```
   (b) Graduate students. Suppose the keyword DISTINCT was placed in front of ID. What would the output look like?

3. Condition can be computed as $TL \times TL/WW$.
   (a) Write code to compute fish condition and save it as the variable `cond` with label ”Condition” for the YearOne data set.
   (b) Modify the above code to select all fish with condition less than 76.

4. Create code for a report that extracts all columns from table YearOne for fish from families A and AY. Undergraduates should provide three distinct ways to do this; graduate students should provide four.

5. Write code for an inner join of YearOne and YearTwo that matches records by ID. Now modify the code to print date of recapture, the average YearOne TL, and the average YearTwo TL by date of recapture.

6. For the following code:
   ```sql
   proc sql;
   select date format mmddyy10., count(TL) as count, sum(TL) as sum from YearTwo
   where ID in
   (select ID
    from YearOne where Family in ("C","B") and WW>900)
   group by date;
   quit;
   ```
   (a) Which records would be output from the inner query?
   (b) List the output from the outer view.

7. Write code to enter the following record into YearTwo:
   ```plaintext
   930 1/23/12 1510
   ```

8. What would the output from the following code look like? Undergraduate students should only answer part (a).
(a) proc sql;
   select ID from YearOne
   except
   select ID from YearTwo;
quit;

(b) proc sql;
   select ID from YearOne
   intersect all
   select ID from YearTwo;
quit;
Data sets

<table>
<thead>
<tr>
<th>ID</th>
<th>Family</th>
<th>TL</th>
<th>WW</th>
</tr>
</thead>
<tbody>
<tr>
<td>673</td>
<td>B</td>
<td>275</td>
<td>960</td>
</tr>
<tr>
<td>675</td>
<td>A</td>
<td>275</td>
<td>1010</td>
</tr>
<tr>
<td>045</td>
<td>A</td>
<td>260</td>
<td>880</td>
</tr>
<tr>
<td>930</td>
<td>AY</td>
<td>285</td>
<td>1080</td>
</tr>
<tr>
<td>122</td>
<td>C</td>
<td>250</td>
<td>980</td>
</tr>
<tr>
<td>110</td>
<td>B</td>
<td>290</td>
<td>920</td>
</tr>
<tr>
<td>108</td>
<td>A</td>
<td>265</td>
<td>930</td>
</tr>
</tbody>
</table>

Table 1: Data Set YearOne: ID Implant Number, Family, Total Length and Weight of 1-year old striped bass

<table>
<thead>
<tr>
<th>ID</th>
<th>Date</th>
<th>TL</th>
</tr>
</thead>
<tbody>
<tr>
<td>673</td>
<td>12/15/11</td>
<td>1340</td>
</tr>
<tr>
<td>673</td>
<td>1/23/12</td>
<td>1460</td>
</tr>
<tr>
<td>110</td>
<td>1/23/12</td>
<td>1260</td>
</tr>
<tr>
<td>122</td>
<td>12/15/11</td>
<td>1300</td>
</tr>
<tr>
<td>673</td>
<td>12/15/11</td>
<td>1465</td>
</tr>
<tr>
<td>045</td>
<td>1/23/12</td>
<td>1250</td>
</tr>
</tbody>
</table>

Table 2: Data Set YearTwo: ID Implant Number, Date of Recapture, and Total Length of 2-year old striped bass