STAT 541: Test 1

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:

```
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:

```
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:

```
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

ID	Family	TL	WW
673	B	275	960
675	A	275	1010
045	A	260	880
930	AY	285	1080
122	C	250	980
110	B	290	920
108	A	265	930

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

ID	Date	TL
	12/15/11	1340
673	1/23/12	1460
110	1/23/12	1260
122	12/15/11	1300
673	12/15/11	1465
045	1/23/12	1250

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