Name:

NetId/Email:

- 1. (1 pt.) State an important difference between R and SAS.
- 2. (1 pt.) Give an example of, or describe, an ordinal variable?
- 3.) (2 pts.) Given Data Set 1 below, write out the results of selecting the rows where $X1 \ge 3$.

ID	X1	X2
123A	1	Α
1234	2	В
1235	3	С
1235B	4	D

Data Set 1

4.) (3 pts.) Given Data Set 2 below, write out the results of grouping Data Set 2 by ID and averaging X3.

ID	X3
123A	5
1234	6
1235	7
1235B	8
1234	9
1235	10
1235B	11

Data Set 2

5. **(3 pts.)** Given Data Sets 1 and 2 above, write out the results of *left* joining Data Set 1 onto Data Set 2 by the key variable shared between the two data sets. (Let Data Set 2 be the left table.)