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 ≥ 3.

|  |  |  |
| --- | --- | --- |
| ID | X1 | X2 |
| 123A | 1 | A |
| 1234 | 2 | B |
| 1235 | 3 | C |
| 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.)