Business Statistics 201-934-DW Assignment 1
Due Date - Friday September 18th **4:00pm**

From the Textbook p.257

4.137, 4.140, 4.142, 4.144, 4.148, 4.150, 4.154, 4.158, 4.160, 4.164

Permutations & Combinations

1- You have 12 *different** textbooks that you want to place on a shelf, five of them are statistics textbooks and the rest are economics textbooks.

(a) How many different ways are there of arranging the 12 textbooks on the shelf?
(b) How many different ways are there of arranging the 12 textbooks on the shelf if all the textbooks of the same subject must be next to each other?
(c) How many different ways are there of arranging the 12 textbooks on the shelf if the statistics textbooks must be next to each other (no condition on the economics textxbooks)?
Keep in mind that since the textbooks are different, the order in which they are placed matters

2- You have to form a 6 person committee from a group of 12 people of which 4 are teachers and 8 are students. How many ways are there of doing this if:
(a) There are no conditions placed on committee membership?
(b) If the committee has no teachers?
(c) If the committee must contain at least one teacher?
(d) If the committee must have exactly 3 teachers?

MARKING SCHEME

Textbook Questions: 5 marks each (50 marks total)
Other Questions: 7 marks each (14 marks total)
Presentation: 11 marks

Total: 75 marks