

**Homework #2 – Due Wednesday, Sep. 17**  
STAT-UB.0103 – Statistics for Business Control and Regression Models

Assignments must be turned in at the end of class or given to the TA before his his office hours end. Electronic submissions are not accepted.

**Problem 1**

Sincich, Ex. 3.18: PIN pad shipments.  
(*Note: if you have the 2nd edition of the textbook, then the problem number is Ex. 3.16.*)

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**Problem 2**

Sincich, Ex. 3.36: Problems at major companies.  
(*2nd edition: Ex. 3.34.*)

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**Problem 3**

Sincich, Ex. 3.40: Social networking Web sites in the United Kingdom.  
(*2nd edition: Ex. 3.38.*)

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**Problem 4**

Sincich, Ex. 3.44: Guilt in decision making.  
(*2nd edition: Ex. 3.40.*)

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**Problem 5**

Five businesspeople meet at a convention. How many handshakes are exchanged if each shakes hands with all the others?

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**Problem 6**

How many handshakes are exchanged if fifty businesspeople meet at a convention and each shakes hands with all the others?

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### Problem 7

How many license plates are possible if the first three places are occupied by letters and the last three by numbers? The middle place can either be a letter or a number. Assume that every license plate has exactly seven characters, and that each character is either a letter (A–Z) or a number (0–9).

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### Problem 8

A basketball team has 5 players over six feet tall and 6 who are under six feet. How many ways can they have their picture taken if the 5 taller players stand in a row behind the 6 shorter players who are sitting on a row of chairs?

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### Problem 9

Suppose that in the packaged-cereals industry, 29% of all vice presidents hold MBA degrees, 24% hold undergraduate business degrees, and 8% hold both. A vice president is to be selected at random.

- (a) What is the probability that the vice president holds either an MBA or an undergraduate business degree (or both)?
- (b) What is the probability that the vice president holds neither degree?
- (c) What is the probability that the vice president holds an MBA degree but not an undergraduate business degree?

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