Economics 224-001/002
Assignment 1

Note: Due by NOON Sept. 19, 2008, in the Economics department office (Cl. 241). It may be handed in late on Sept. 22 by NOON with a 20% penalty, but after that late assignments will be assigned a grade of 0.
Be sure to keep an electronic copy of all Excel spreadsheets. You may need to use them again in subsequent assignments.

1. Find the following data, being sure to explain carefully, step by step, how you found it. I should be able to duplicate your steps if I need to.

a) The level of unemployment in Canada for the year indicated in the table below, based on your student number.

b) The percentage change in new house prices year-over-year for the most recent month (either June or July in all likelihood) for the major cities of Canada. Your best bet to find this data is the Statistics Canada website (http://www.statcan.ca/start.html).

i) Put together a bar graph of the percentage changes ranked from lowest to highest, and highlight Regina's rate. (You do not need to use the histogram function for this.) Print out and attach or cut and paste the result into your answer.

ii) It has been recently argued that Regina has the highest rate of increase among Canadian cities for house prices. Does your data support this argument?

15 marks

	Question 1	**Question 2**
Student Number ends in 0	1980	Anthropology
Student Number ends in 1	1982	Economics
Student Number ends in 2	1984	English
Student Number ends in 3	1986	French
Student Number ends in 4	1988	Geography
Student Number ends in 5	1990	History
Student Number ends in 6	1992	Political Science
Student Number ends in 7	1994	Psychology
Student Number ends in 8	1996	Religious Studies
Student Number ends in 9	1998	Sociology

2. Student groups often argue that the prices of university books are very high. We're going to investigate this by gathering some data. Go to the U of R bookstore. Based on your student number in the table above, find the shelves with the books for the appropriate department.

a) Collect data on the titles and prices of each major book for each separate section of each course at the 200 level and 300 level. (In short, just one book, the expensive one, per section.) Stop after you have collected 10 books, if there are more than 10 separate sections. Put this data in an Excel spreadsheet. Explain any assumptions/decisions you had to make along the way.

b) Use Excel's descriptive statistics data analysis tool to provide the mean, median, mode, etc for the dataset. Print out and attach or cut and paste the result into your answer.

c) Use the histogram data analysis tool to provide the frequency tables (you will need to come up with your own bin number range) and histogram graph for the data. Print out and attach or cut and paste the result into your answer.
d) If we were truly trying to find out how expensive the textbooks were in each discipline, how would we have to improve our process? Explain carefully.

25 marks

CORRECTED

3. One of the basic tenets of finance theory is that by diversifying between various investment options, an investor can reduce risk.
   The table to the right shows some data from the return on holding the stock of two companies over a 32 year period (this data is also available in an Excel spreadsheet on the course webpage).
   Set up a spreadsheet and do the following:

a) Calculate the mean, standard deviation and coefficient of variation for each stock.
b) Calculate the correlation between the two stocks.
c) Next, using Excel, create 5 diversified portfolios. The portfolios should have the following weights:

i) 25% Brad and 75% Jen.
ii) 40% Brad and 60% Jen.
iii) 50% Brad and 50% Jen.
iv) 60% Brad and 40% Jen.
v) 75% Brad and 25% Jen.

For each of the portfolios, calculate the mean, standard deviation and coefficient of variation.

d) Which stock or portfolio combination would an investor pick to hold if they used the following criteria for choosing their portfolios or single stocks?

i) Maximizing the return, ignoring variation.
ii) Minimizing the variation, ignoring the return.
iii) Minimizing the coefficient of variation.

20 marks

	Brad's Groceries	Jen's Jewels
1975	2	6
1976	-5	8
1977	5	4
1978	1	10
1979	14	3
1980	15	0
1981	5	-3
1982	2	-6
1983	13	-4
1984	-4	3
1985	0	7
1986	-3	8
1987	-3	14
1988	-1	6
1989	0	8
1990	-3	4
1991	5	-4
1992	14	-6
1993	16	-7
1994	-4	3
1995	-3	6
1996	-3	8
1997	-6	8
1998	3	7
1999	3	11
2000	14	-4
2001	15	0
2002	13	6
2003	15	7
2004	-3	10
2005	14	10
2006	13	-3