

## QUANTITATIVE METHODS

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# Assignment 2

This assignment is due **Wednesday January 26, 2005**.

You must give a print out of all your Worksheets, and hand them in with a cover page.

You must also send your work on Excel by e-mail.

### Question 1 (10 points)

On Excel, make the same presentation as you had for Assignment 1 (or for Lab 2, except cell A2 has Assignment 2 instead of Lab 2). Label sheet 1 "Question 1".

In cell A6 write "Question" in bold and in cell B6 write "Answers" in bold.

Make a list of numbers 1 to 10 below Question, then answer the following in the Answers column. Note, as for the lab, I don't want just the answer. You must use Excel to calculate the expressions. Also, any answer that is in decimal form must be rounded off to three decimal places.

1.  $\frac{2+10}{6-1}$

2.  $\frac{2+8+14+15+18}{5}$

3.  $2^3 + \frac{1}{1+3^2}$

4.  $(7-5)(3+2)$

5.  $\frac{2 \times 7 - 2}{3(1+8)}$

6.  $\frac{15.5 - 15}{\frac{3.2}{\sqrt{21}}}$

7.  $2.58 \sqrt{\frac{0.3(1-0.3)}{35}}$

8.  $\frac{\sqrt{3} + \sqrt{8}}{4}$

9.  $78 + 1.645 \frac{18}{\sqrt{50}}$

10.  $\sqrt{\frac{(8-11)^2 + (9-11)^2 + (12-11)^2 + (15-11)^2}{4-1}}$

**Question 2** (5 points)

On Sheet 2, create a heading similar to that of the question 1. Relabel sheet 2 “Question 2”.

Write “Sample” in cell A6.

Out of the population of 17809 students currently studying in a CEGEP in the Quebec city area, select a random sample of 40 students for use in a study by the ministry of education. Assume that all the students have been assigned a number between 1 and 17809. The 40 chosen numbers should appear below cell A6, and should be sorted. Should you sample with or without replacement? Explain. Write your answer in cell C7.

Note: when printing this worksheet, only print the first page. For this, modify your PRINT RANGE in FILE –PRINT to go from page 1 to 1.

**Question 3** (5 points)

On Sheet 3, create a heading similar to that of the question 1. Relabel sheet 3 “Question 3”.

Write “Students” in cell A6 and “Sample” in cell B6, both words in bold.

Members of the QM Club are assigned a six digit account number when they sign up. In order to do a survey on the appreciation the members have of the club, a random sample of 15 students is to be taken. First, go get the list of account numbers from the file “Data – Account Number” on my web site, and copy the list in your worksheet. Then take the sample out of the account numbers.

Note: when printing this worksheet, only print the first page.