

Social Studies 201
First Midterm Examination
Wednesday, October 4, 2000
Time: 50 Minutes

Answer **one** of the two questions in Part A (10 points) and **two** of the three questions in Part B ($2 \times 20 = 40$ points).

Part A. Answer **one (1)** of the following two questions. (10 points).

1. Table 2 contains information concerning two variables. Identify the variables and explain the type of scale or measurement for each of the variables.
2. See Table 1. The Canadian Undergraduate Survey Consortium, in *Graduating Students Survey 2000: University of Regina*, reports “the **average** student in our sample is a single female, who is 25 years old.” In words, explain the meaning of **average**, noted in bold face in the quote and in Table 1. Note any problems you see with the statement.

Part B. Answer **two (2)** of the three questions in this part. (2×20 points = 40 points).

1. The histograms in Figure 1 are taken from data presented on page 22 of the *Second Graduated Survey* of the University of Regina. The data refer to the weekly hours worked at a job by 1995 and 1999 graduates during an average semester while they attended university. The numbers in the bars of the histogram are the percentages of respondents represented by each bar. From the two histograms, answer the following.
 - (a) Calculate the mean weekly hours worked at a job for 1995 and 1999.
 - (b) What is the median category of hours worked for each of the two years? Explain your reasoning. (You need not interpolate, but in a sentence or two explain which interval contains the median).
 - (c) In a sentence or two compare the distributions of weekly hours worked at a job for the two years.

2. Use the percentage distributions in Table 2 for this question. These distributions come from the article “Are children going to religious services?” in *Canadian Social Trends*, Autumn 1999, pp. 13-16.
 - (a) What is the mode, median, and 33rd percentile for each of (i) Roman Catholic, (ii) Anglican, and (iii) Baptist?
 - (b) Someone suggests that the mean could be calculated by attaching the number 52 to weekly, 12 to monthly, 4 to occasionally, and 0 to not at all. Using these values, calculate the mean for Baptists. In words, explain what this mean represents.
 - (c) Explain which religious affiliation is associated with the greatest attendance and which the least.
3. The responses of fourteen Saskatchewan respondents from the 1996 General Social Survey, concerning their income and their attitude to life, are given in Table 3. The attitude to life question was “Would you describe yourself as being usually (1) happy and interested in life, (2) somewhat happy, (3) somewhat unhappy, or (4) unhappy with little interest?”
 - (a) For (i) the attitude to life question, calculate the mode, median, and mean and for (ii) income calculate the median and mean. (For income, ignore the four respondents who did not provide their income).
 - (b) The fourteen respondents in Table 3 represent a sample of all Saskatchewan respondents. When all Saskatchewan respondents were considered, the results were as follows.

Statistic	Value of Statistic
Mode of attitude	1
Median attitude	1
Mean attitude	1.2
Median income	17.5
Mean income	23.6

Compare your results in (a) with the above statistics and provide possible reasons why the statistics from the sample of size fourteen differ from the statistics for all Saskatchewan respondents.