Exercise 5
Tests of difference.

These exercises have been prepared for use in conjunction with Chapter 5 of the 5th edition of "SPSS for Psychologists" by Brace, Kemp and Snelgar (2012)

1. Load the data file **EX5Q1.sav.** This is a corrected version of the data file used in Exercise 4 which includes the new variables we computed as part of that exercise.

   The researcher has hypothesized that participants will score higher on the subscale GKSub1 than GKSub2. Test this hypothesis and report the results.

2. Using the same data file, test the hypothesis that Male participants score higher on GKRatio than Females. Report the results of this test.

3. The psychologist has also hypothesized that Females will express stronger agreement with questionnaire item LIK4 than will males. Test this hypothesis and report the results.

4. Test the hypothesis that participants express stronger agreement with item LIK3 than they do with item LIK5.

5. Now load the data file called **Employee data.sav**. This is a demonstration data file which for many years has been supplied with every version of SPSS. The file will be located with the SPSS program files. The exact location varies slightly, but on our computer systems the file is in the folder **c:\program files\IBM\Statistics\20\Samples\English** (or, if you are running version 19 **c:\program files\IBM\Statistics\19\Samples\English**). This file codes the gender, education, ethnic minority status, length of employment, and salary when first hired and present salary of each of a group of several hundred employees.

   Examine the file carefully. You will note that the authors have ignored our advice and have made use of various variable types including String, Dollar and Date variables.

   a) A string variable has been used to code gender as "m" or "f". Use the 'Recode into Different Variables' command to create a numeric variable called NewGender in which the values 1 and 2 are used to represent male and female.
   b) The variables 'salary' and 'salbegin' have been setup as Dollar variables. Change the setting to make these numeric variables (this can be done In the Variable View)
   c) Imagine you have been asked to investigate a claim of discrimination in this organisation. Compare the salary of ethnic minority and non-minority employees. Do your results support the claim of discrimination?
   d) Considering the Male and the Female employees separately, is the current salary of each of these groups significantly higher than the starting salary?
   e) Save the corrected version of the file – we will be using it again in later exercises.