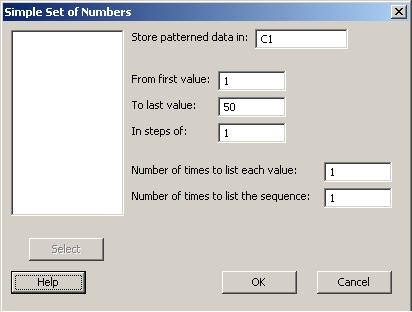
# Chapter

**1**

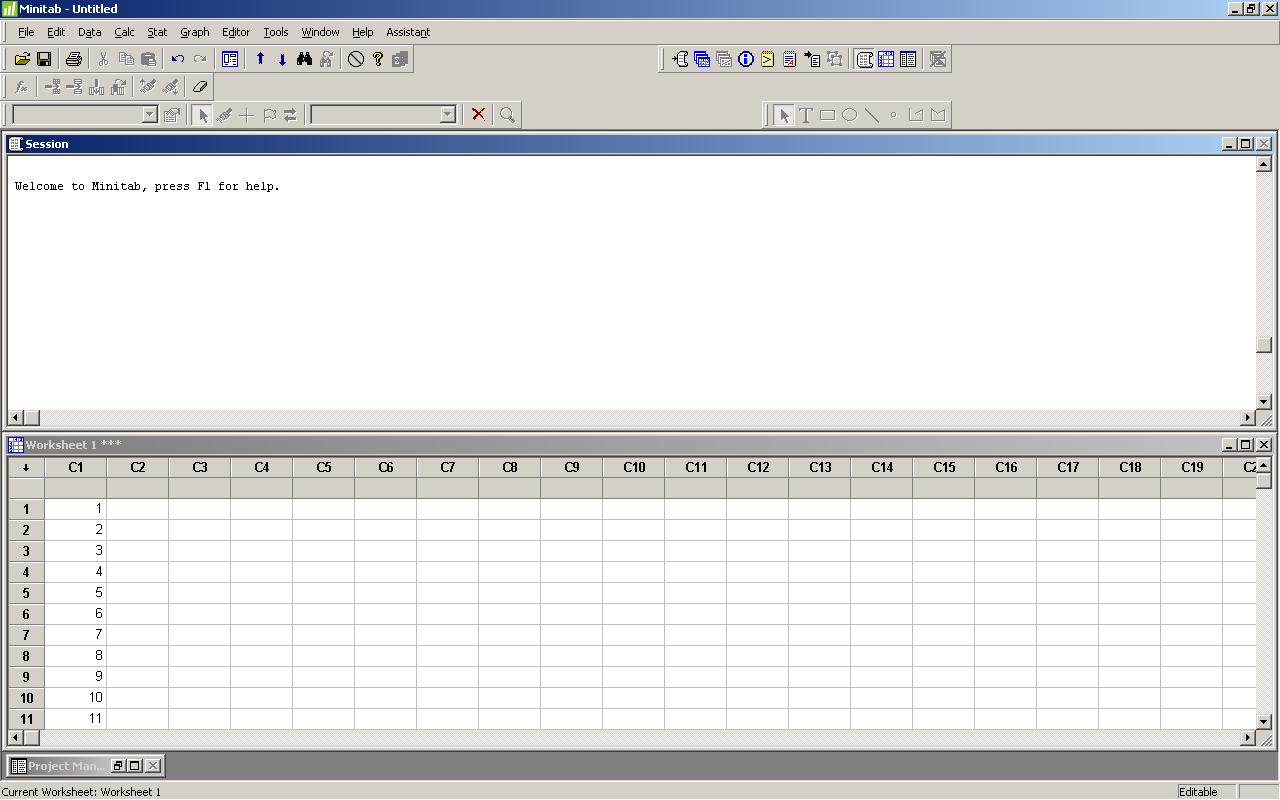
## Introduction

##### Creating Random Data

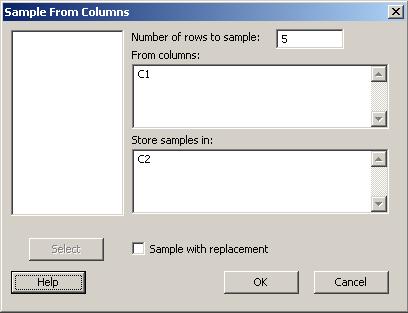
Suppose you would like to randomly select 5 students from a class of 50. Minitab can select a random sample from a list of data points for you. Begin by letting Minitab generate a large list of data for you. Let each of the 50 students be represented by the numbers 1 to 50 (instead of names). You could type the numbers 1, 2, 3, … into the Minitab Worksheet, but it is quicker to let Minitab do this for you. Click on **Calc** → **Make Patterned Data** → **Simple Set of Numbers.** In the **Store patterned data in field**, enter C1. The data should begin **From first value** 1 and go **To last value** of 50 **In steps of** 1. Click **OK**.



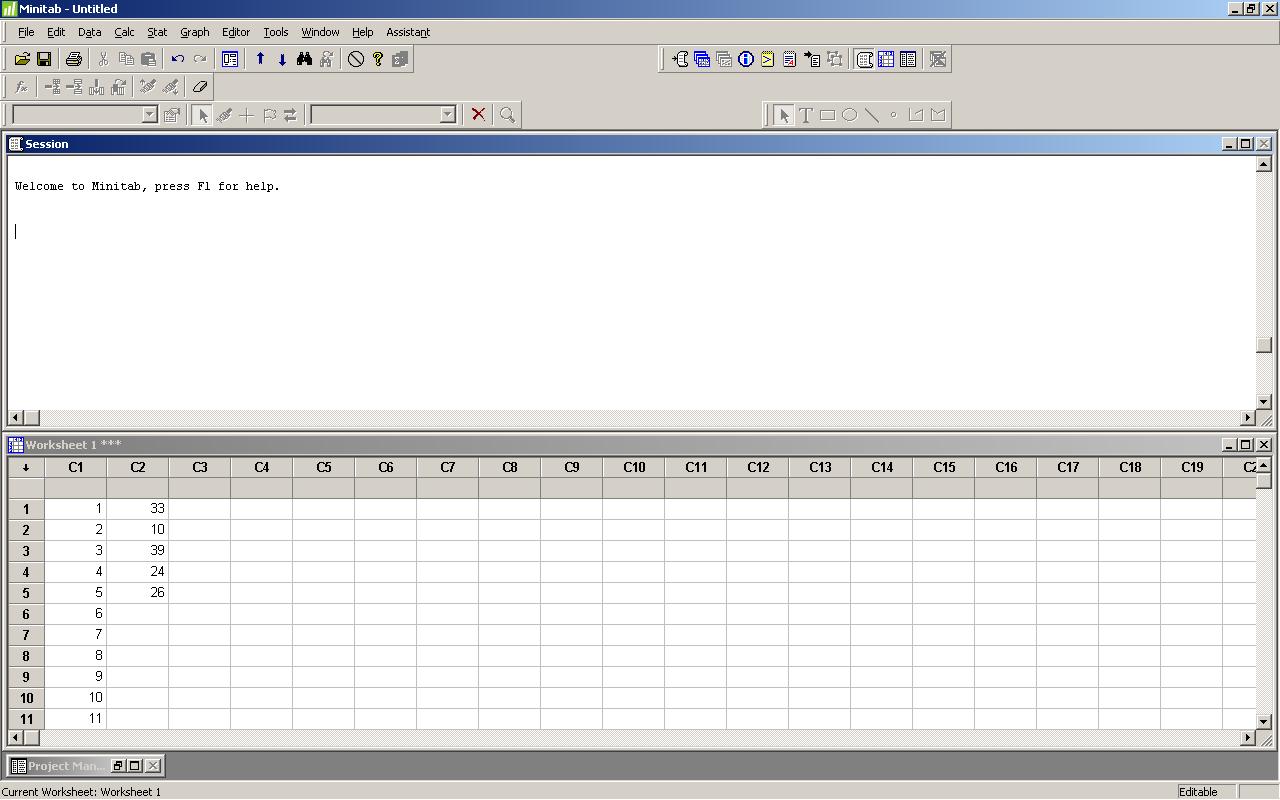
The numbers 1 through 50 should now be in column C1 of the Minitab Worksheet.



Now that you have a list of the 50 students in the class, you will take a random sample of 5 students. Since you do not want repeats, you will be sampling without replacement. Click on **Calc → Random Data → Sample From Columns.** Enter 5 in the **Number of Rows to sample** field, choose to select **From columns** C1 and **Store samples in** column C2. Click **OK**.



There should be a random sample of 5 numbers (students) in column C2. Students numbered 33, 10, 39, 24, and 26 were randomly selected for this sample (your selections may differ).

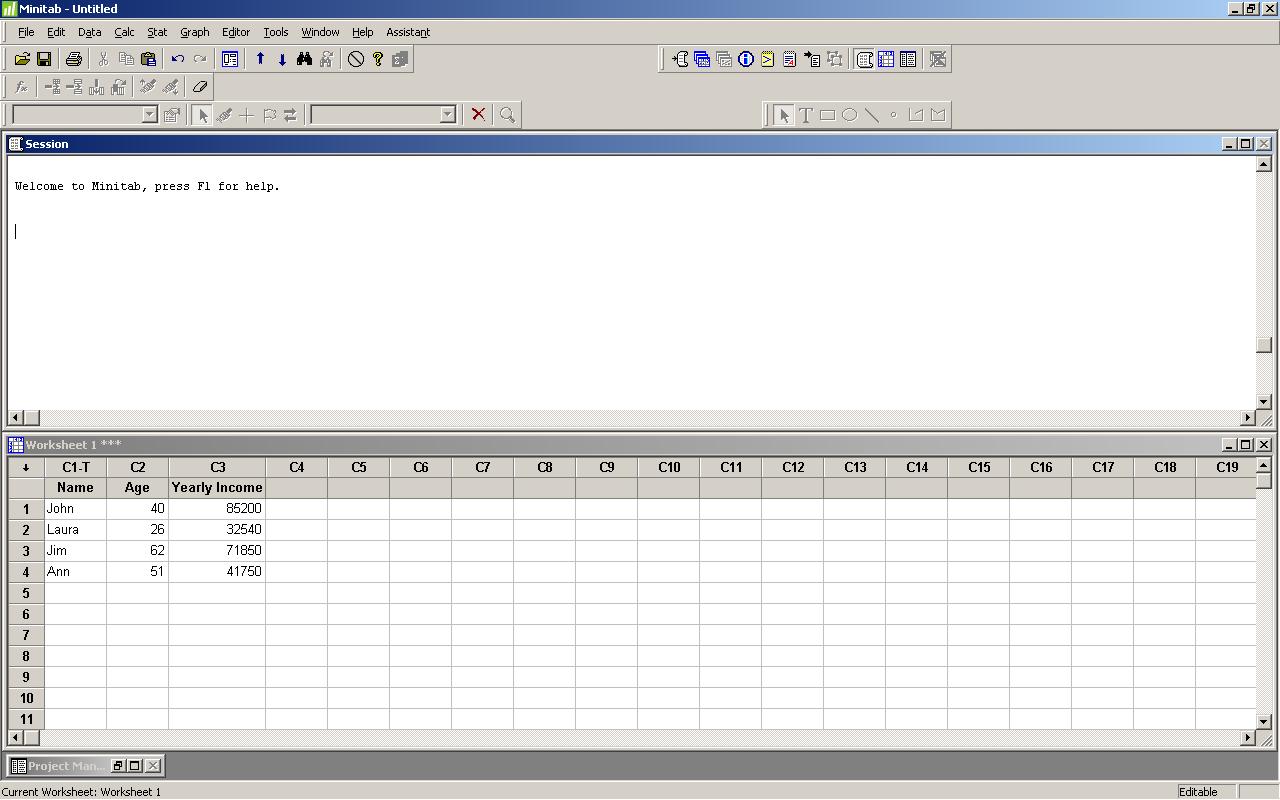


**Data Manipulations**

The following table gives the names, age, and yearly income for 4 workers in an office.

|  |  |  |
| --- | --- | --- |
| Name | Age | Yearly Income |
| John | 40 | $85,200 |
| Laura | 26 | $32,540 |
| Jim | 62 | $71,850 |
| Ann | 51 | $41,750 |

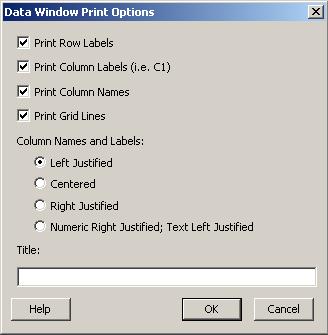
Enter the data into columns C1, C2, and C3 in the Minitab Worksheet. Give the columns appropriate names by typing the names into the gray cells beneath the column numbers. Do not type in the dollar signs or the commas for the incomes because Minitab will then assume that the data is not numeric.



The following instructions are to teach you how to do some simple functions.

**Printing:**

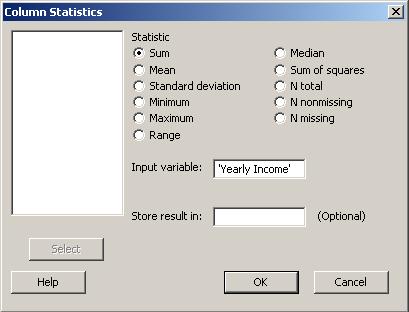
To print a worksheet, place the cursor in the Worksheet section of the window and click on **File⭢Print Worksheet**. Select the checkbox beside any items you wish to have printed. Select the button next to the desired justification of the data. Enter a title of the data if desired in the title field. Select **OK** to print the Worksheet as desired.

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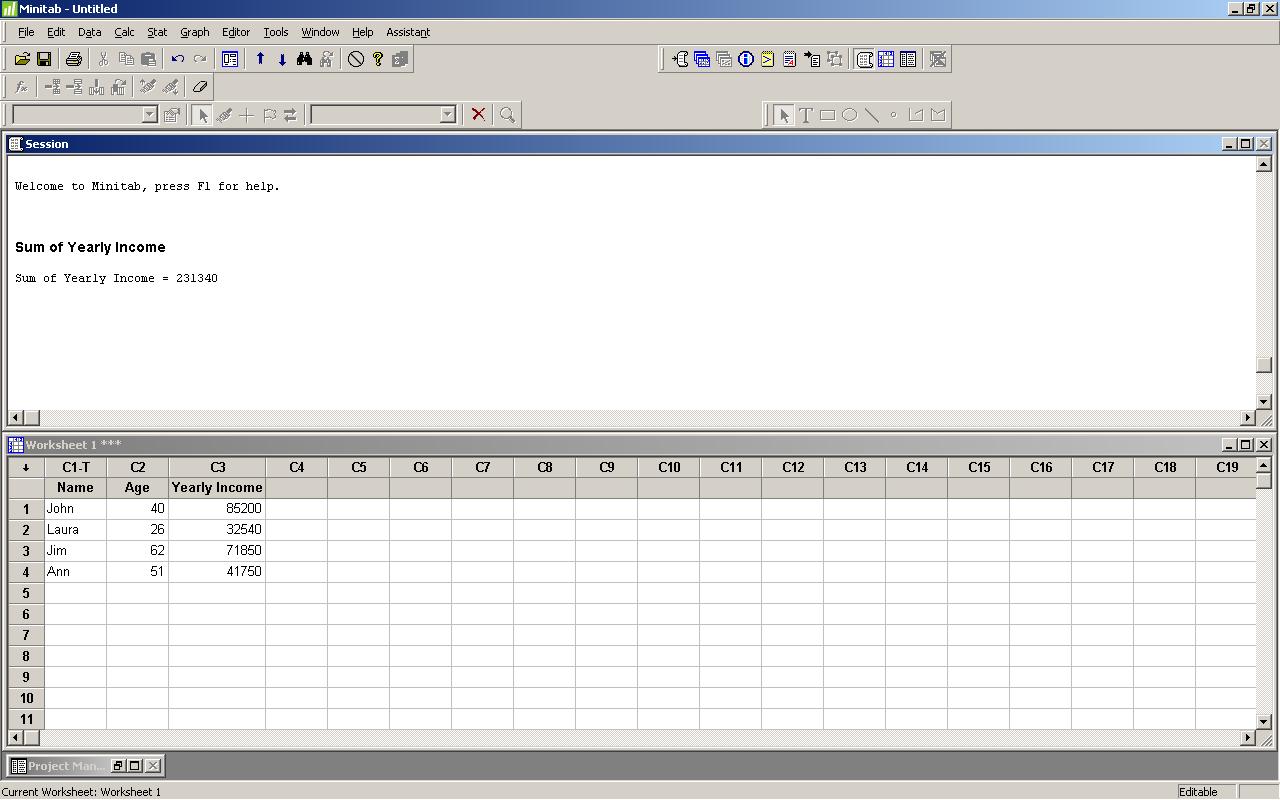
To print the Session Window, place the cursor in the Session section of the window and click on **File⭢Print Session Window.**

**Summing a column:**

To find the total yearly income made by the 4 people, click on **Calc → Column statistics.** Click on the circle beside **Sum**. Place the cursor into the **Input Variable** field. You will see the available data fields to input in the box on the left. Double-click on column C3 (Yearly Salary) in the left box to automatically select it for the **Input variable**. Leaving the **Store result in** field blank will tell the results to be sent to the Session window. Click **OK.**

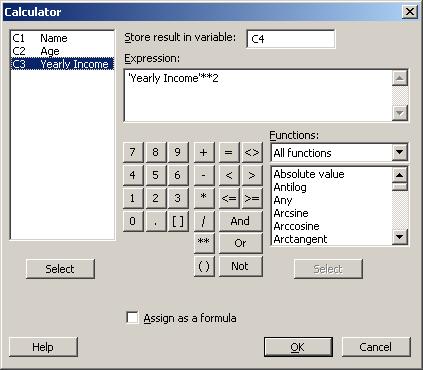


The “Sum of Yearly Salary = 231340” will be displayed in the Session Window.



**Using the Calculator:**

You may use the calculator to do any data manipulations that you choose. To use the calculator, click on **Calc → Calculator.** For this example, you will multiply C3 by itself – the number in each cell of C3 will be squared and stored in C4. In the field **Store result in variable**, enterC4, and in **Expression** field, enter C3 \*\* 2 (Yearly Salary raised to the 2nd power). Click **OK.**



Column C4 will contain the square of the Yearly Salary.

