CPSC 203: Introduction to Problem Solving Using Application Software

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Introduction

Tutorial: 01

Lecture: L01

Instructor: **Angela Duta**

Lab: Tuesday & Thursday 11:00 - 11:50

TA: **Shahed**

Office: ICT 524

CT: Thursday 18:00 - 19:00 (MS 237)
Friday 2:00 - 3:00 (MS 237)

Email: shkhandk@ucalgary.ca, shahedk@gmail.com

About Lab & Assignments

- You need CPSC username & password to access the computers
- All personal files will be deleted when you logout
  - Use memory sticks or network storage to save your work/assignments.
- Your assignments must be compatible to **Microsoft Office 2007**

Web Sites

- http://wiki.ucalgary.ca/page/Courses/Computer_Science/CPSC_203/CPSC_203_Template
  - *Google: CPSC 203 wiki*
- *http://wiki.ucalgary.ca/page/Courses/Computer_Science/CPSC_203/CPSC_203_Template/Winter_2010_Teaching_Assistants*
- http://cpsc203.blogspot.com

Quiz & Assignments

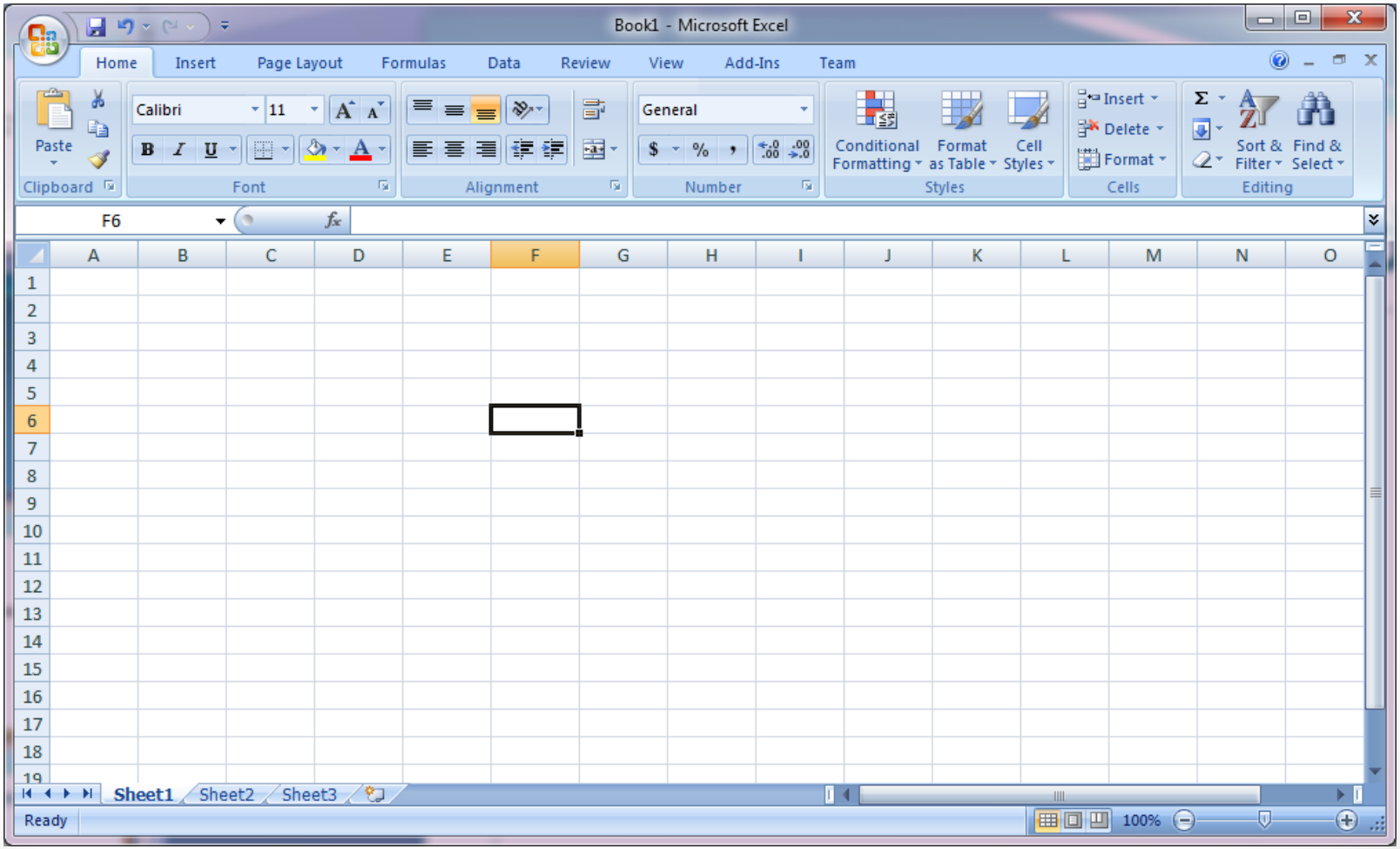
- You are allowed to bring books/documents in quiz
  - But only hard copies, no internet access
- There will be individual & group assignments
  - Generally, you have to submit assignments via *BlackBoard*
- Schedule for assignments & quizzes are available in *BlackBoard*

Lab 1: Introduction to Spreadsheets and Basic Calculations

Topic:

- Introduction to Microsoft Excel 2007
- Data entry
- The AutoFill feature
- Set-up appropriate field formats. (i.e. currency, numbers, text, etc.)
- Use functions to calculate basic statistics

Introduction to Spreadsheets



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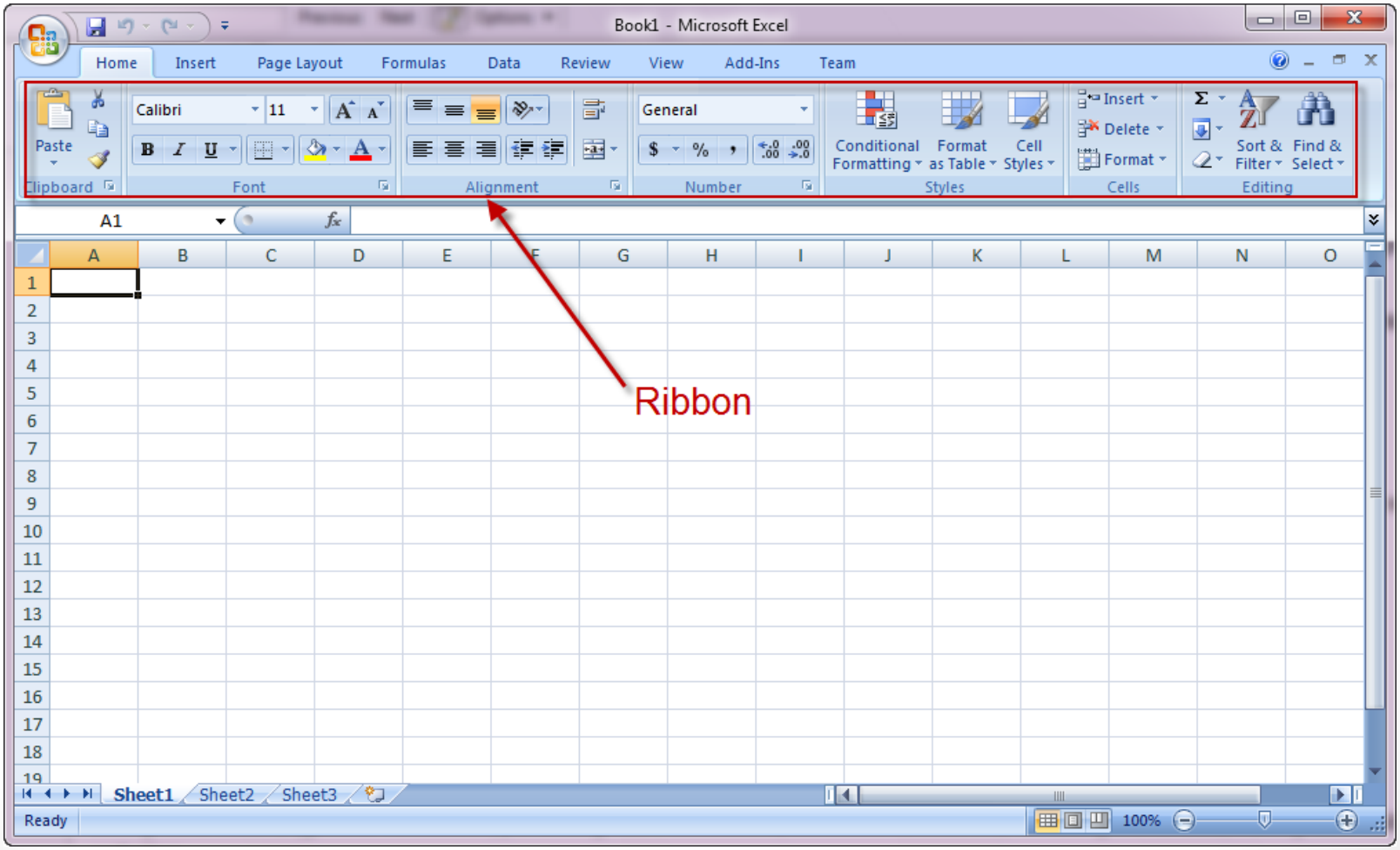

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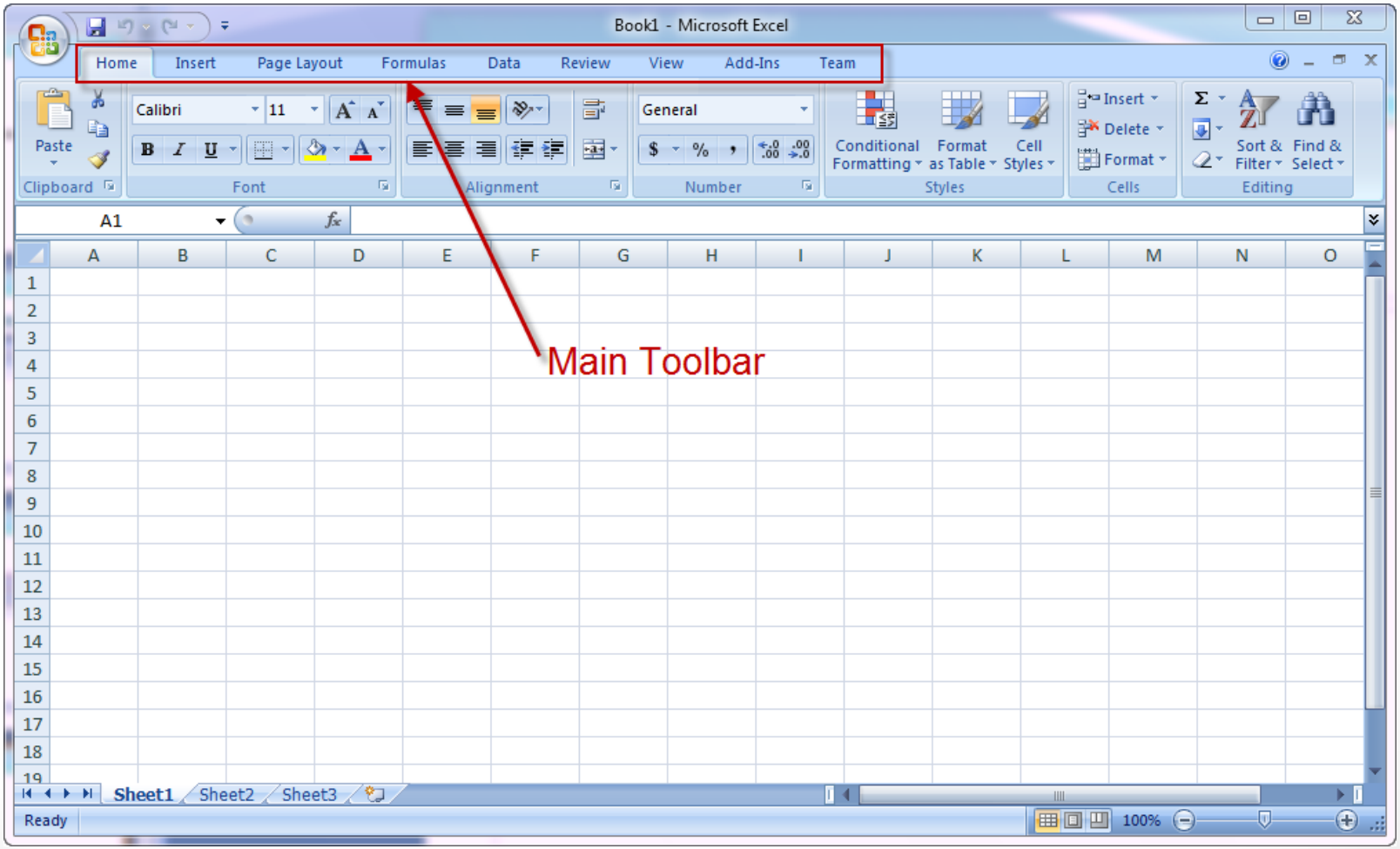

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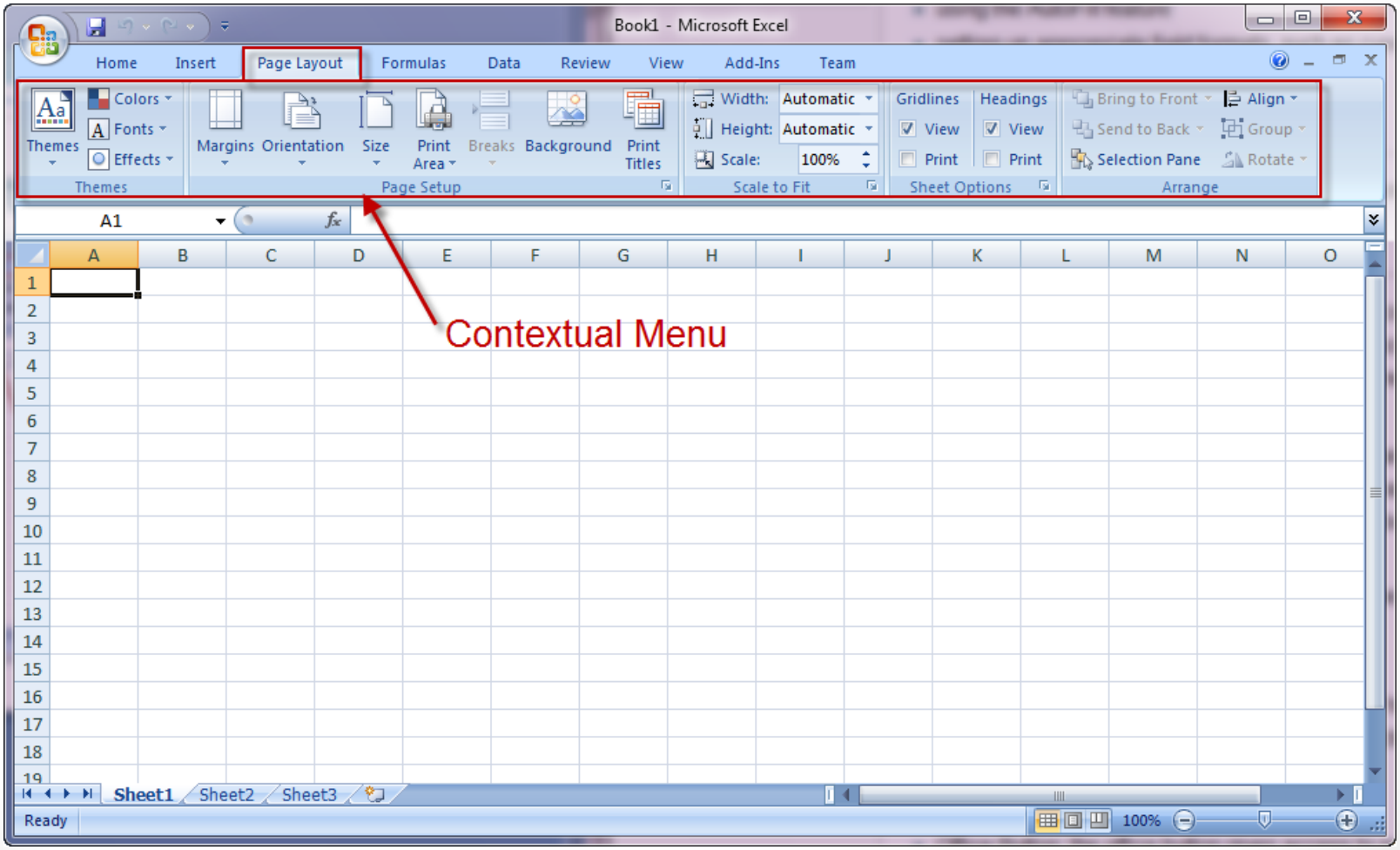

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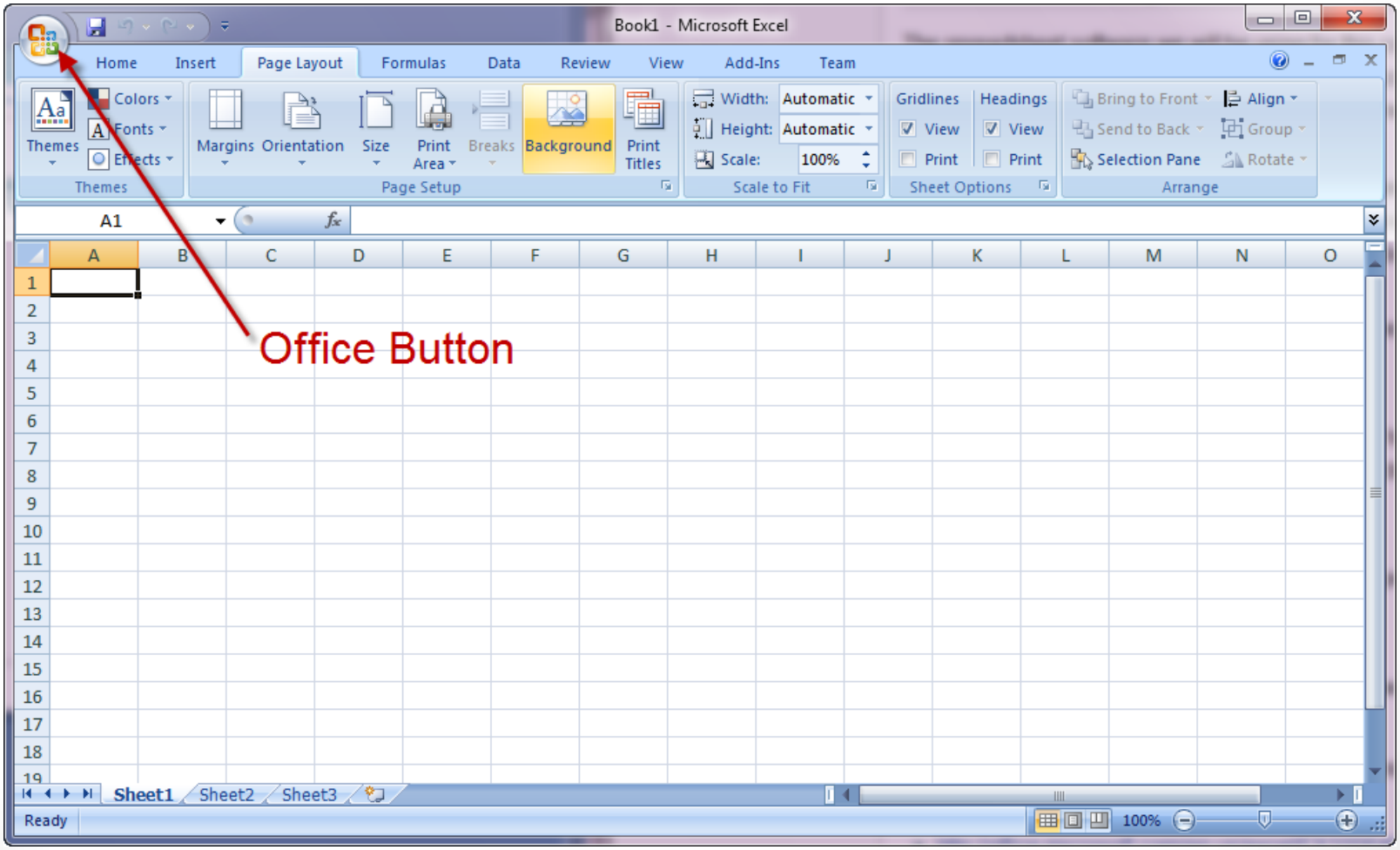

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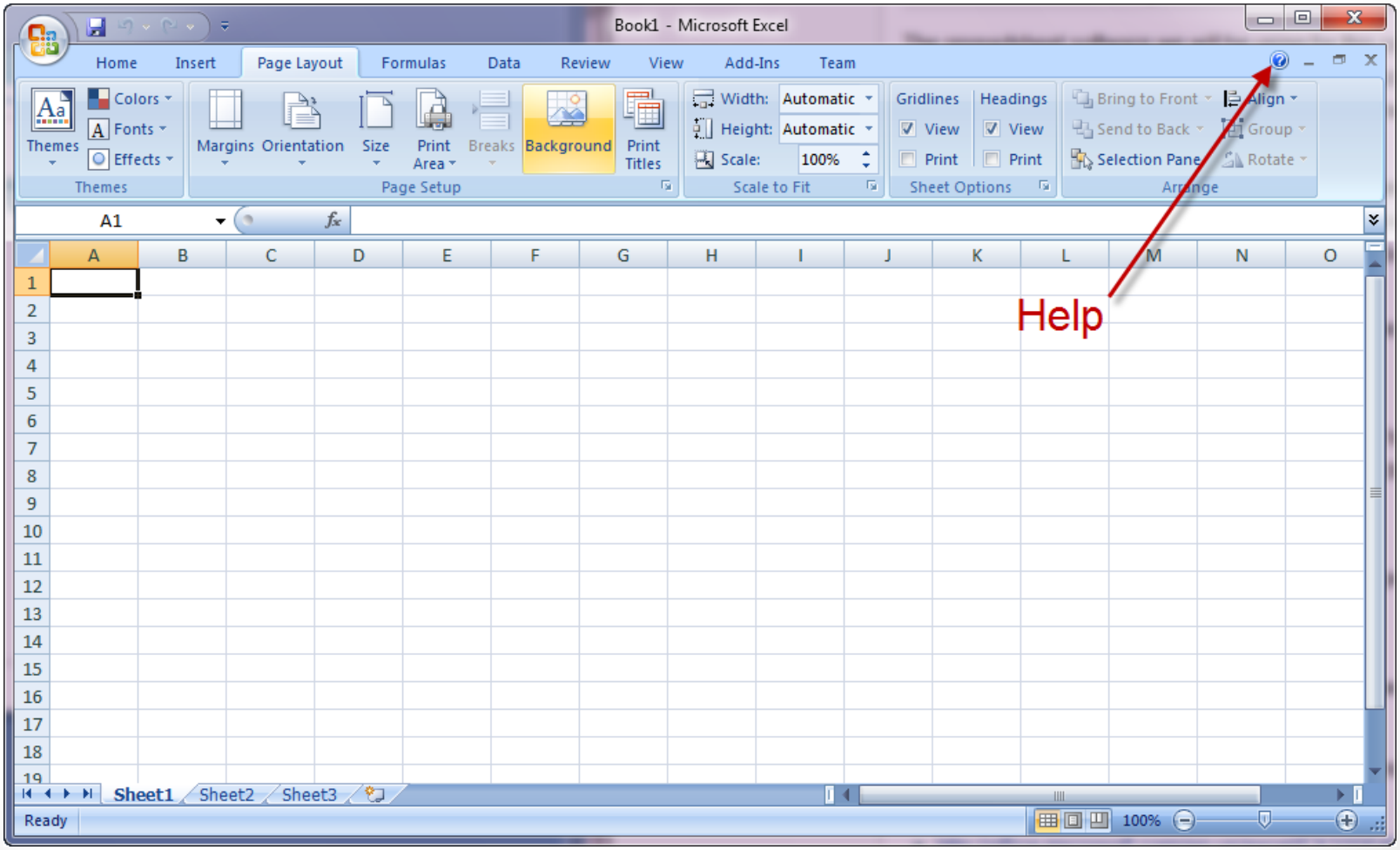
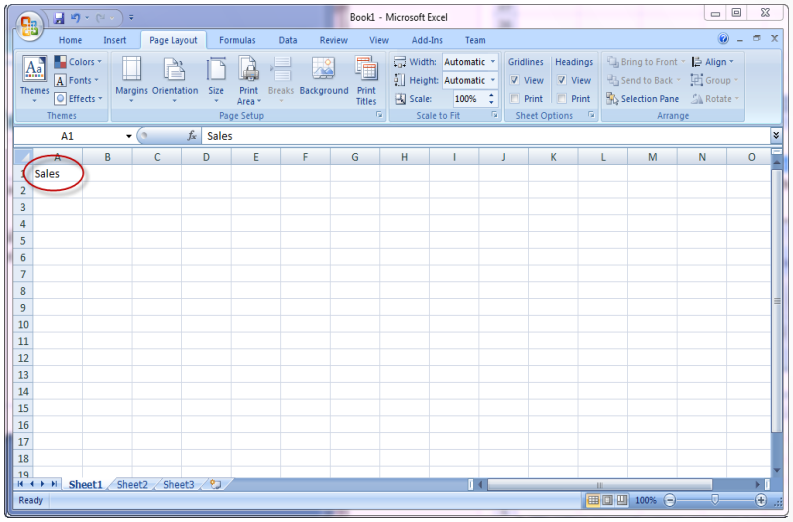


Type in some basic data

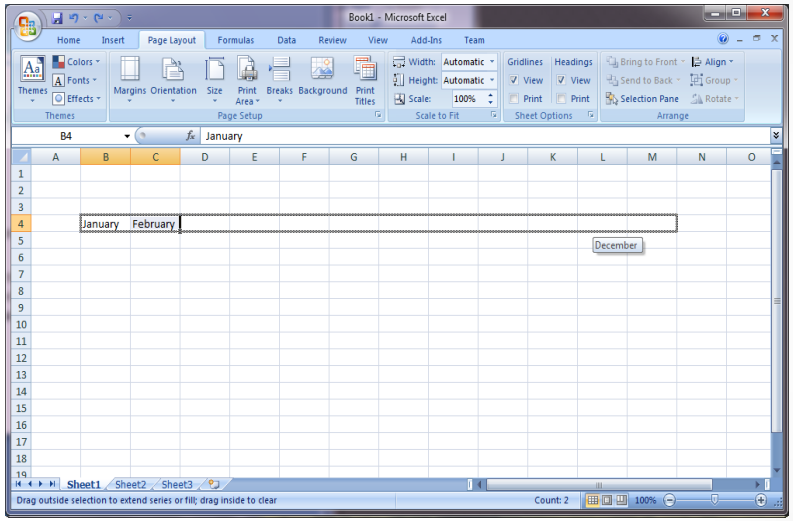
- Start Microsoft Excel 2007
- Click in a cell
- Use the keyboard to add a number or text to the cell (e.g. Sales)
- To complete the entry, press the 'Enter' key



AutoFill a field(s)

The Auto-Fill feature:

- Can be used with both numbers and text
- Can be applied to both rows and columns
- The start of a sequence must be given. As few as two cells with numbers or text can be used



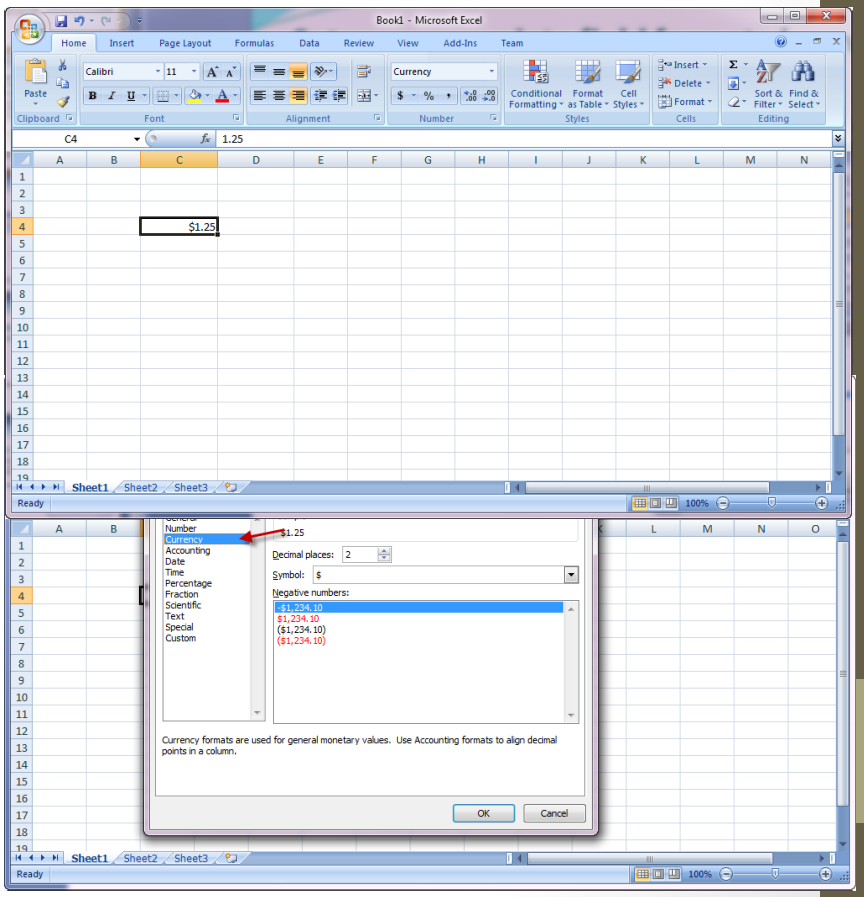
Set-up appropriate field formats (currency, numbers, text, etc.)

To set field formats:

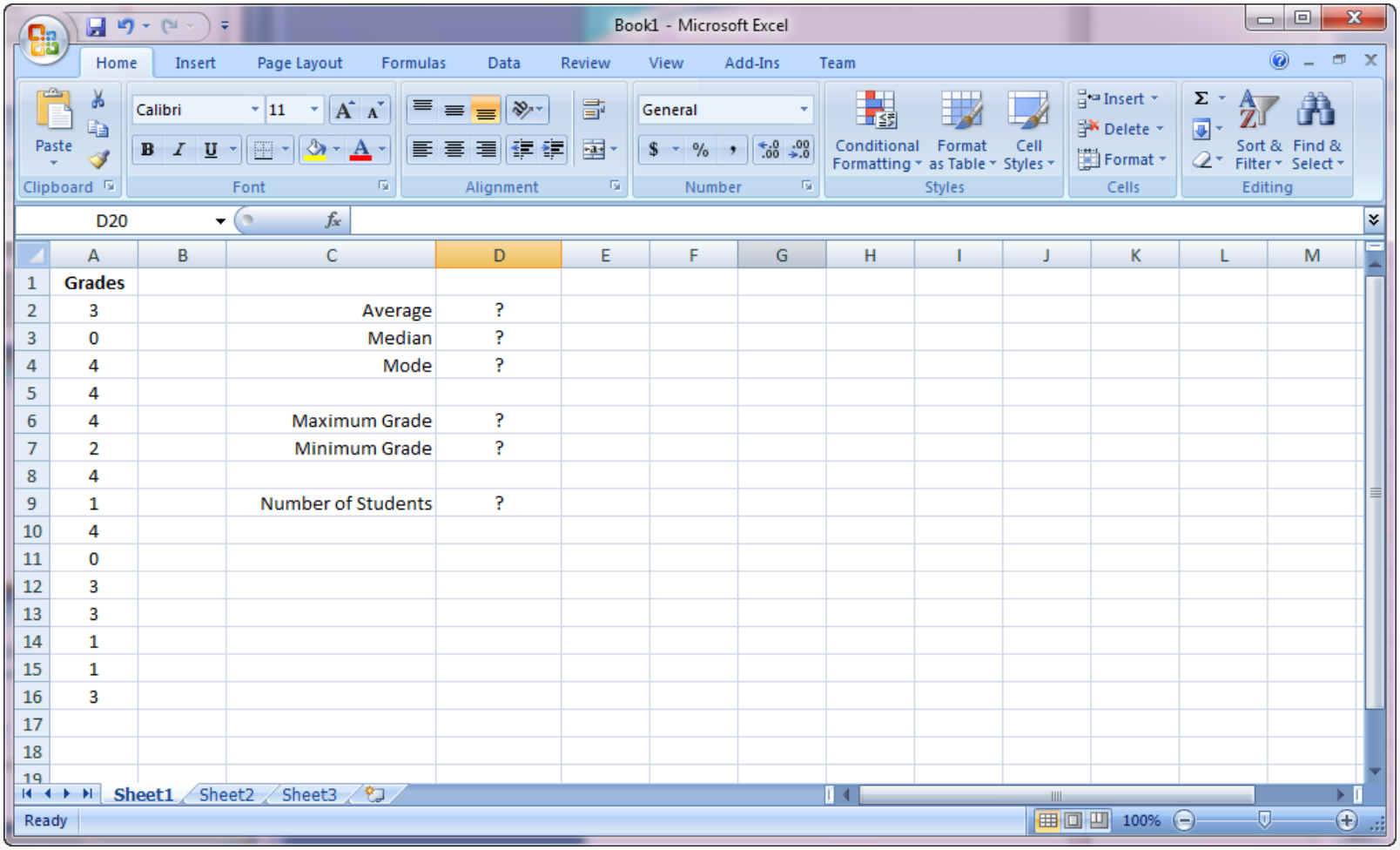
- Select the cell you
  - Use the ribbon
    - ‘Number’ contextual menu as part of ‘Home’ in the main toolbar)

  Or,

  - Right-click using your mouse
    - Select ‘Format Cells’ from the drop-down menu to open a new panel
    - Select the ‘Number’ tab in the new panel.



Calculate basic statistics



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Grades**												
2	3		Average	?									
3	0		Median	?									
4	4		Mode	?									
5	4												
6	4		Maximum Grade	?									
7	2		Minimum Grade	?									
8	4												
9	1		Number of Students	?									
10	4												
11	0												
12	3												
13	3												
14	1												
15	1												
16	3												
17													
18													
19													

Calculate basic statistics

Some basic statistics:

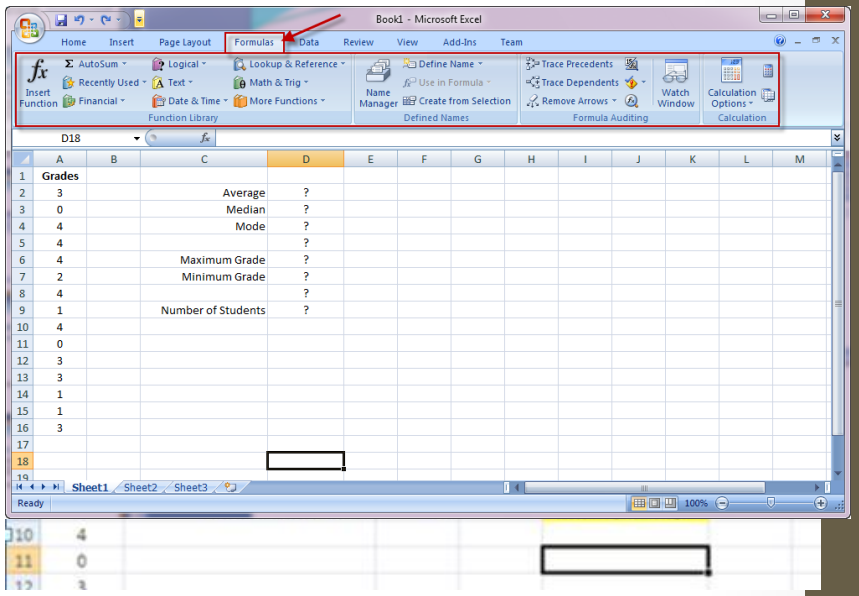
- Count
- Min
- Max
- Average
- Median
- Mode
- Standard Deviation

How to use a Function

- Functions can be specified
  - directly in cells (using cell number or range)

Or,

  - In the function Toolbar



=MIN(A2:A16)

Some Functions in Excel

- COUNT( ) function gives the number of cells that contain numbers
  - syntax *=COUNT(value1, value2, ...)*
  - *Or, =COUNT(cell address, cell address, ...)*
  - *Or, =COUNT(first cell address : last cell address)*

B2 | f_x | =COUNT(A2:A13)

	A	B	C	D	E
1	Values				
2	1	6			
3	2				
4	6				
5	7				
6					
7	3				
8	2				
9	a				
10	b				
11					
12	c				
13	d				

=Count(A2:A13)

Some Functions in Excel

Function	Description
Count	The number of cells that contain numbers
MIN	The smallest value in a set of numbers
MAX	The largest value in a set of numbers
AVERAGE	The average, or arithmetic mean value in the set of numbers
MEDIAN	The middle number in a set of numbers
MODE	The most frequently occurring value of a set of numbers

Questions?

Exercise