

Some Excel Formulae - 1

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Count

The screenshot shows the Microsoft Excel interface in Compatibility Mode. The title bar reads "Lab1.xls [Compatibility Mode] - Mic...". The ribbon is set to "Home", and the "Editing" group is active, showing icons for Paste, Font, Alignment, Number, Styles, Cells, and Editing. The formula bar displays the formula `=COUNT(A1:A5)` in cell A7. The spreadsheet grid shows columns A through E and rows 1 through 7. The data in column A is as follows:

	A	B	C	D	E
1	3				
2	8				
3	7				
4	5				
5	9				
6					
7	5				

The status bar at the bottom indicates "Ready" and "100%".

Sum

The screenshot displays the Microsoft Excel interface. The title bar shows the file name "Lab1.xls [Compatibility Mode] - Mic...". The ribbon is set to the "Home" tab, with the "Editing" group selected. The formula bar shows the active cell "A7" and the formula $=SUM(A1:A5)$. The spreadsheet grid shows the following data:

	A	B	C	D	E
1	3				
2	8				
3	7				
4	5				
5	9				
6					
7	32				

The status bar at the bottom indicates "Ready", "Sheet1", "Sheet2", "Sheet3", and "100%".

Average (mean)

The screenshot displays the Microsoft Excel interface. The title bar shows the file name "Lab1.xls [Compatibility Mode] - Mic...". The ribbon is set to the "Home" tab, with the "Editing" group selected. The formula bar shows the active cell A7 containing the formula $=\text{AVERAGE}(A1:A5)$. The spreadsheet grid shows the following data:

	A	B	C	D	E
1			3		
2			8		
3			7		
4			5		
5			9		
6					
7			6.4		

The status bar at the bottom indicates the spreadsheet is "Ready" and the zoom level is 100%.

Median

The screenshot shows the Microsoft Excel interface. The title bar indicates the file is 'Lab1.xls [Compatibility Mode]'. The ribbon is set to 'Home', and the 'Editing' group is active. The formula bar shows the formula `=MEDIAN(A1:A5)` entered in cell A7. The spreadsheet grid shows the following data:

	A	B	C	D	E
1	3				
2	8				
3	7				
4	5				
5	9				
6					
7	7				

The status bar at the bottom shows 'Ready', 'Sheet1', 'Sheet2', 'Sheet3', and a zoom level of 100%.

Median -- Comment

The median is calculated as follows:

- Sort the values in a set of data in ascending order,
- If there is an odd number of values, the middle value in the sorted list is the median,
- If there is an even number of values, the mean (average) of the middle 2 values is the median.

maximum

The screenshot shows the Microsoft Excel interface. The title bar reads "Lab1.xls [Compatibility Mode] - Mic...". The ribbon is set to "Home", and the "Editing" group is active. The formula bar shows the formula $=MAX(A1:A5)$ in cell A7. The spreadsheet data is as follows:

	A	B	C	D	E
1	3				
2	8				
3	7				
4	5				
5	9				
6					
7	9				

The status bar at the bottom indicates "Ready" and "100%".

minimum

The screenshot shows the Microsoft Excel interface. The title bar indicates the file is 'Lab1.xls [Compatibility Mode]'. The ribbon is set to 'Home', and the 'Editing' group is active. The formula bar shows the formula `=MIN(A1:A5)` in cell A7. The spreadsheet data is as follows:

	A	B	C	D	E
1	3				
2	8				
3	7				
4	5				
5	9				
6					
7	3				

The status bar at the bottom shows 'Ready' and a zoom level of '100%'.

range

The screenshot shows the Microsoft Excel interface with the following details:

- Title Bar:** Lab1.xls [Compatibility Mode] - Microso...
- Formulas Bar:** A7 fx =MAX(A1:A5)-MIN(A1:A5)
- Worksheet Grid:**

	A	B	C	D	E	F
1	3					
2	8					
3	7					
4	5					
5	9					
6						
7	6					
- Bottom Status Bar:** Ready 100%

Range -- Comment

- In the previous slide, the range of a set of data was calculated using a formula that contained both the maximum and minimum.
- In general it is preferable to use several smaller formulae, rather than one large one.
- A single formula was used in this example to make the slide simpler.

Equal?

The screenshot shows the Microsoft Excel interface. The title bar reads "Lab1.xls [Compatibility Mode] - Microso...". The ribbon is set to "Home" and includes groups for "Clipboard", "Font", "Alignment", "Number", "Styles", "Cells", and "Editing". The formula bar shows the active cell is A7 with the formula $=A1=A2$. The spreadsheet grid shows the following data:

	A	B	C	D	E	F
1	3					
2	8					
3	7					
4	5					
5	9					
6						
7	FALSE					

The status bar at the bottom indicates "Ready" and a zoom level of "100%".

Equal? -- Comment

- The first = in the formula simply tells Excel that the cell contains a formula
- The second = compares the cells and gives either true (if the cells are equal) or false (if the cells are not equal).