Base Module - Spreadsheets ©ICS Skills 2014

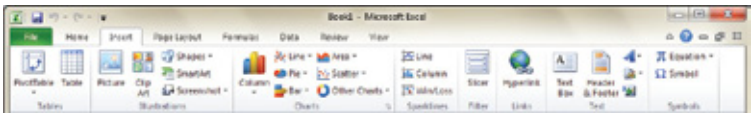
This quick reference is for Microsoft Excel 2010 on Windows 7

Quick Reference

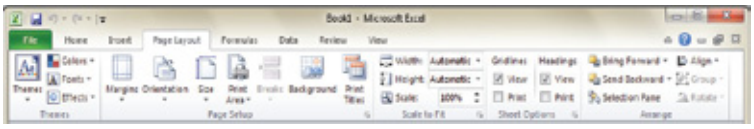
Excel 2010 Tabs

Home

Insert



Page Layout



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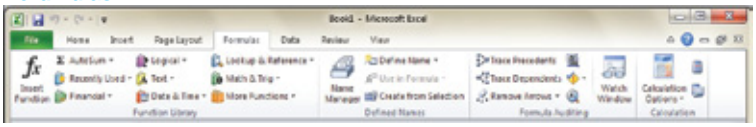

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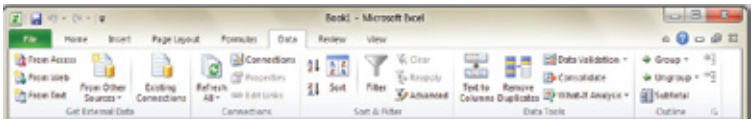
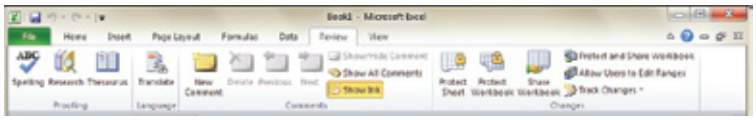
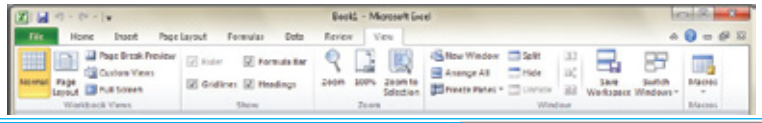


Review



View



Certification Test Goals

This module sets out essential concepts and skills relating to understanding the concept of spreadsheets and demonstrating an ability to use a spreadsheet to produce accurate work outputs.

Successful candidates will be able to:

- Work with spreadsheets and save them in different file formats.
- Choose built-in options such as the Help function within the application to enhance productivity.
- Enter data into cells and use good practice in creating lists. Select, sort and copy, move and delete data.
- Edit rows and columns in a worksheet. Copy, move, delete and appropriately rename worksheets.
- Create mathematical and logical formulas using standard spreadsheet functions. Use good practice in formula creation and recognize error values in formulas.
- Format numbers and text content in a spreadsheet.
- Choose, create and format charts to communicate information meaningfully.
- Adjust spreadsheet page settings and check and correct spreadsheet content before finally printing spreadsheets.

Keyboard Shortcuts

General

Open a workbook	Ctrl+O
Save a workbook	Ctrl+S
Print a workbook	Ctrl+P
Close a workbook	Ctrl+W
Undo	Ctrl+Z
Redo or Repeat	Ctrl+Y
Help	F1
Switch between apps	Alt+Tab

Editing

Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Clear cell contents	Delete
Edit active cell	F2
Absolute reference	F4

Navigation

Up one screen	Page Up
Down one screen	Page Down
To cell A1	Ctrl+Home
To the last cell	Ctrl+End

Formatting

Bold	Ctrl+B
Italics	Ctrl+I
Underline	Ctrl+U

1 Using the Application

1.1 Working with Spreadsheets

1.1.1 **Open a spreadsheet application.**
- Click the Start button.
- Select All Programs.
- Click Microsoft Excel 2010.

1.1.1 **Close a spreadsheet application.**
- On the File tab, click Exit.

1.1.1 **Open spreadsheets.**
- On the File tab, click Open.
- Select the spreadsheet(s) to open and click Open.

1.1.1 **Close spreadsheets.**
- On the File tab, click Close.

1.1.2 **Create a new spreadsheet based on default template.**
- On the File tab, click New.
- A blank workbook is selected, click Create.

1.1.3 **Save a spreadsheet to a location on a drive.**
- On the File tab, click Save.
- Create a file name and navigate to the location required.
- Click Save.

1.1.3 **Save a spreadsheet under another name to a location on a drive.**
- On the File tab, Click Save As.
- Enter a new file name over the existing file name and navigate to the location required.
- Click Save.

1.1.4 **Save a spreadsheet as another file type like: template, text file, software specific file extension, version number.**
- On the File tab, Click Save As.
- Click on the Save as type drop-down list and click a file type.
- Click Save.

1.1.5 **Switch between open spreadsheets.**
- On the View tab, in the Windows group click the Switch Windows button.
- Click the name of the spreadsheet to switch to.

1.2 Enhancing Productivity

1.2.1 **Set basic options/preferences in the application: user name.**
- On the File tab, click Options.
- On the General tab, enter a user name in the User name box.
- Click OK.

1.2.1 **Set basic options/preferences in the application: default folder to open, save spreadsheets.**
- On the File tab, click Options.
- On the Save tab, enter a default file location in the Default file location box.
- Click OK.

1.2.2 **Use available Help functions.**
- Click on the Help button on the top right of the ribbon.

1.2.3 **Use magnification/zoom tools.**
- On the View tab, in the Zoom group, click the Zoom button.
- Check the required magnification check-box or click the Percent box and enter the magnification required.
- Click OK.

1.2.4 **Restore, minimize the ribbon.**
- Double-click any tab to minimise the ribbon.
- Double-click any tab again to restore the ribbon.

2 Cells

2.1 Insert, Select

2.1.1 **Understand that a cell in a worksheet should contain only one element of data.**
- For example, first name detail in one cell, surname detail in adjacent cell

2.1.2 **Recognize good practice in creating lists:**
- Avoid blank rows and columns in the main body of list
- Insert blank row before Total row
- Ensure cells bordering list are blank

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2.1.3 **Enter a number, date, text in a cell.**
- Click the cell.
- Enter the number, date or text required.

2.1.4 **Select a cell.**
- Click the cell.

2.1.4 **Select a range of adjacent cells.**
- Click the first cell and drag to the last cell in the range.

2.1.4 **Select a range of non-adjacent cells.**
- Click the first cell or range of cells.
- Hold the Ctrl key down and continue highlighting additional non-adjacent ranges.

2.1.4 **Select an entire worksheet.**

- Click the Select All button found above Row 1 and to the left of Column A.

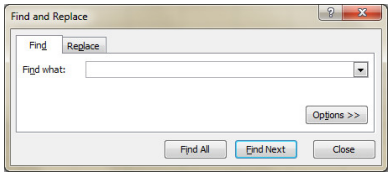
2.2 Edit, Sort

2.2.1 **Edit cell content.**
- Click the cell.
- Edit content as required.

2.2.1 **Modify existing cell content.**
- Click the cell.
- Enter additional content or delete existing content.

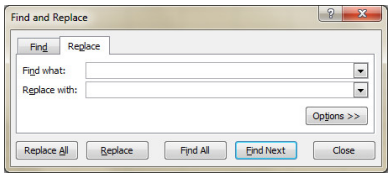
2.2.2 **Use the undo, redo command.**
- Go to the Quick Access Toolbar.
- Click the Undo or Redo buttons.

2.2.3 **Use the search command for specific content in a worksheet.**



- On the Home tab, in the Editing group, click the Find & Select button.
- Click Find.
- Enter the word or phrase to find in the Find what box.
- Click Find Next to select the first occurrence of the word or phrase or click Find All.
- Click Close.

2.2.4 **Use the replace command for specific content in a worksheet.**



- On the Home tab in the Editing group, click the Find & Select button.
- Click Replace.
- Enter the word or phrase to replace in the Find what box.
- Enter the word or phrase to replace with in the Replace with box.
- Click Find Next to select the first occurrence of the number or text.
- Click Replace or Replace All.
- Click OK.
- Click Close.

2.2.5 **Sort a cell range by one criterion in ascending, descending numeric order, ascending, descending alphabetic order.**

- Select the cell range to sort.
- On the Data tab, in the Sort & Filter group, click the Sort A to Z button to sort in ascending order or click the Sort Z to A button to sort in descending order.

2.3 Copy, Move, Delete

2.3.1 **Copy the content of a cell, cell range within a worksheet, between worksheets, between open spreadsheets.**
- Select the cell or cell range to copy.
- On the Home tab, in the Clipboard group, click the Copy button.
- Click a new location within the worksheet or within another open spreadsheet.
- On the Home tab, in the Clipboard group, click the Paste button.

2.3.2 **Use the autofill tool/copy handle tool to copy, increment data entries.**
- Select the cell or cell range to copy.
- Move the mouse pointer over the lower right hand corner of the selected cell or cell range.
- Use the fill handle to drag through the range required.

2.3.3 **Move the content of a cell, cell range within a worksheet, between worksheets, between open spreadsheets.**
- Select the cell or cell range to move.
- On the Home tab, in the Clipboard group, click the Cut button.
- Click a new location within the worksheet or within another open spreadsheet.
- On the Home tab, in the Clipboard group, click the Paste button.

2.3.4 **Delete cell contents.**
- Select the cell contents to delete.
- Press the Delete key.

3 Managing Worksheets

3.1 Rows and Columns

3.1.1 **Select a row.**
- Click the row heading.

3.1.1 **Select a range of adjacent rows.**
- Click the first row heading.
- Drag to highlight through to the last row heading.

3.1.1 **Select a range of non-adjacent rows.**
- Click the first row heading or range of rows.
- Hold the Ctrl key down and continue highlighting additional row headings.

3.1.2 **Select a column.**
- Click the column heading.

3.1.2 **Select a range of adjacent columns.**
- Click the first column heading.
- Drag to highlight through to the last column heading.

3.1.2 **Select a range of non-adjacent columns.**
- Click the first column heading or range of columns.
- Hold the Ctrl key down and continue highlighting additional column headings.

3.1.3 **Insert rows.**
- Click the row heading(s) above which the new row will appear.
- On the Home tab, in the Cells group, click the Insert button.

3.1.3 **Insert columns.**
- Click the column heading(s) immediately to the right of where the new column will appear.
- On the Home tab, in the Cells group, click the Insert button.

3.1.3 **Delete rows.**
- Click the row heading(s) of the rows to delete.
- On the Home tab, in the Cells group, click the Delete button.

3.1.3 **Delete columns.**
- Click the column heading(s) of the columns to delete.
- On the Home tab, in the Cells group, click the Delete button.

3.1.4 **Modify column widths to a specified value, to optimal width.**
- Click the column heading(s) of the columns to modify.
- On the Home tab, in the Cells group, click the Format button.
- To modify the column width to a specified value, click Column Width and enter a width.
- Click OK.
- To modify the column width to optimal width, click Autofit Column Width.

3.1.4 **Modify row heights to a specified value, to optimal height.**
- Click the row heading(s) of the rows to modify.
- On the Home tab, in the Cells group, click the Format button.
- To modify row height to a specified value, click Row Height and enter a row height.
- Click OK.
- To modify row height to optimal height, click Autofit Row Height.

3.1.5 **Freeze row titles.**
- Select the row immediately below the row to freeze.
- On the View tab, in the Window group, click the Freeze Panes button.
- Click Freeze Panes.

3.1.5 **Freeze column titles.**
- Select the column immediately to the right of the column to freeze.
- On the View tab, in the Window group, click the Freeze Panes button.
- Click Freeze Panes.

3.1.5 **Unfreeze row and/or column titles.**
- On the View tab, in the Window group, click the Freeze Panes button.
- Click Unfreeze Panes.

3.2 Worksheets

3.2.1 **Switch between worksheets.**
- Click the worksheet tab at the bottom of the workbook window.

3.2.2 **Insert a new worksheet.**
- On the Home tab, in the Cells group, click the Insert arrow.
- Click Insert Sheet.

3.2.2 **Delete a worksheet.**
- Select the sheet to delete.
- On the Home tab, in the Cells group, click the Delete arrow.
- Click Delete Sheet.

3.2.3 **Recognize good practice in naming worksheets.**
- Use meaningful worksheet names rather than accept default names.

3.2.4 **Copy a worksheet within a spreadsheet.**
- Right-click the worksheet tab at the bottom of the workbook window.
- Click Move or Copy.
- Select the location to copy the worksheet to.
- Check the Create a copy checkbox.
- Click OK.

3.2.4 **Move a worksheet within a spreadsheet.**
- Right-click the worksheet tab at the bottom of the workbook window.
- Click Move or Copy.
- Select the location to move the worksheet to.
- Click OK.

3.2.4 **Rename a worksheet within a spreadsheet.**
- Right-click the worksheet tab at the bottom of the workbook window.
- Click Rename.
- Enter the worksheet name into the highlighted worksheet tab.

4 Formulas & Functions

4.1 Arithmetic Formulas

4.1.1 **Recognize good practice in formula creation:**
- Refer to cell references rather than type numbers into formulas

4.1.2 **Create formulas using cell references and arithmetic operators (addition, subtraction, multiplication, division)**
- Click the cell to enter the formula into.
- Enter the = (equals) sign.
- Enter a formula using cell references and operators, for example =B3+B4.

4.1.3 **Identify and understand standard error values associated with using formulas:**

Error	Cause
#NAME?	Does not recognise text in formula
#DIV/0!	Number is divided by zero
#REF!	Cell reference is not valid
#####	Column is not wide enough to display value
#Value!	Wrong type of argument or operand is used
#N/A	Value is not available to a function or formula
#NUM!	Invalid numeric values in a formula or function
#NULL!	Cell references are not separated correctly in a formula

4.1.4 **Understand relative, absolute cell referencing in formulas.**

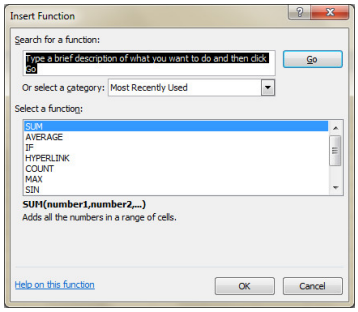
- A formula that contains relative cell reference will change when it is copied to other cells.
- A formula that contains an absolute cell reference always refers to a cell in a specific location and never changes when copied to other cells.

4.1.4 **Use relative, absolute cell referencing in formulas.**

- By default, once copied, formula cell references will become relative and change as per the cells selected.
- To create an absolute cell reference press F4 after selecting the cell and the formula will fix to this cell.

4.2 Functions

4.2.1 **Use sum, average, minimum, maximum, count, counta, round functions.**



- Click the cell to enter the formula into.
- On the Formulas tab, in the Function Library group, click the Insert Function button.
- Enter the function name in the highlighted Search for a function box.
- Click Go.
- Ensure the function is highlighted in the Select a function box.
- Click OK.
- Enter the arguments for the function.
- Click OK.

Function	Name	Description
Sum	SUM	The sum of the values
Average	AVERAGE	The average of the values
Minimum	MIN	The smallest value
Maximum	MAX	The largest value
Count	COUNT	The number of data values
Counta	COUNTA	The number of data values in non-blank cells
Round	ROUND	Numbers rounded to whole numbers

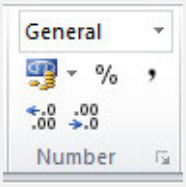
4.2.2 **Use the logical function if (yielding one of two specific values) with comparison operator: =, >, <.**

- The if function returns one value if a condition specified evaluates to TRUE and another value if it evaluates to FALSE.
- Click the cell to enter the formula into.
- On the Formulas tab, in the Function Library group, click the Insert Function button.
- Enter IF in the highlighted Search for a function box.
- Click Go.
- Enter the arguments for the function.
- Click OK.

5 Formatting

5.1 Numbers/Dates

5.1.1 **Format cells to display numbers to a specific number of decimal places.**

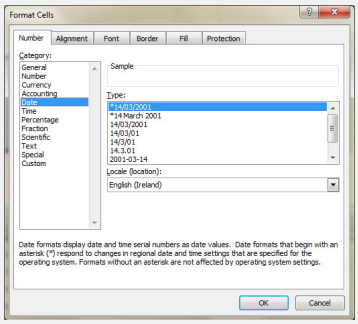


- Select the cell or cell range.
- On the Home tab, in the Number group, click the Increase Decimal or Decrease Decimal button.
- Each click will increase or decrease the number by one decimal.

5.1.1 **Format cells to display numbers with, without a separator to indicate thousands.**

- Select the cell or cell range.
- On the Home tab, in the Number group, click the Comma Style button to use commas as a separator or not.

5.1.2 **Format cells to display a date style.**



- Select the cell or cell range.
- On the Home tab, in the Cells group, click the Format button.
- Click Format Cells.
- On the Number tab, click the Date category.
- Click a date type from the Type box.
- Click OK.

5.1.2 **Format cells to display a currency symbol.**

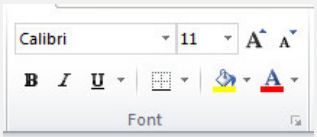
- Select the cell or cell range.
- On the Home tab, in the Number group, click the Accounting Number Format arrow.
- Click the currency required.

5.1.3 **Format cells to display numbers as percentages.**

- Select the cell or cell range.
- On the Home tab, in the Number group, click the Percent Style button.

5.2 Contents

5.2.1 **Change cell content appearance: font sizes.**



- Select the cell or cell range.
- On the Home tab, in the Font group, click the Font Size arrow.
- Click a size from the list or enter a size into the Font Size box.

5.2.1 **Change cell content appearance: font types.**

- Select the cell or cell range.
- On the Home tab, in the Font group, click the Font arrow.
- Click a font from the list or enter a font into the Font box.

5.2.2 **Apply formatting to cell contents: bold, italic, underline, double underline.**

- Select the text to format.
- To embolden the text, on the Home tab, in the Font group, click the Bold button.
- To italicise the text, on the Home tab, in the Font group, click the Italic button.
- To underline the text, on the Home tab, in the Font group, click the Underline button.
- To double underline the text, on the Home tab, in the Font group, click the Underline arrow and click the Double Underline button.

5.2.3 **Apply different colours to cell content, cell background.**

- Select the cell or cell range to colour.
- On the Home tab, in the Font group, click the Fill Color arrow.
- Click a colour.

5.2.4 **Copy the formatting from a cell, cell range to another cell, cell range.**

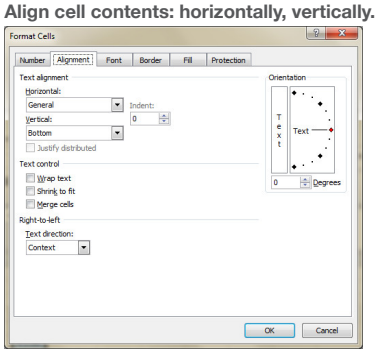
- Select the cell or cell range to copy from.
- On the Home tab, in the Clipboard group, click the Format Painter button.
- Click the cell or cell range to apply the format.

5.3 Alignment, Border Effects

5.3.1 **Apply text wrapping to contents within a cell, cell range.**

- Select the cell or cell range.
- On the Home tab, in the Alignment group, click the Wrap Text button.

5.3.2 **Align cell contents: horizontally, vertically.**



- Select the cell or cell range.
- On the Home tab, in the Alignment group, click the Alignment group arrow.
- On the Alignment tab, click the alignment options required in the Horizontal and Vertical boxes.
- Click OK.

5.3.2 **Adjust cell content orientation.**

- Select the cell range.
- On the Home tab, in the Alignment group, click the Orientation button.
- Click the cell content orientation required.

5.3.3 **Merge cells and centre a title in a merged cell.**

- Select the cell range.
- On the Home tab, in the Alignment group, click the Merge & Center arrow.
- Click the merge option required.

5.3.4 **Add border effects to a cell, cell range: lines, colours.**

- Select the cell range.
- On the Home tab, in the Font group, click the Border arrow.
- Click the line and colour options required.

6 Charts

6.1 Create

6.1.1 **Create different types of charts from spreadsheet data: column chart, bar chart, line chart, pie chart.**

- Select the data on the spreadsheet.
- On the Insert tab in the Charts group, click the chart button required.
- Click the specific chart type required.
- The chart will appear on the spreadsheet.

6.1.2 **Select a chart.**
- Click the chart.

6.1.3 **Change the chart type.**
- Select the chart.
- On the Design tab, in the Type group, click the Change Chart Type button.
- Click a chart type from the available list.
- Click OK.

6.1.4 **Move a chart.**
- Select the chart.
- To move the chart within the worksheet, drag it to the location required.
- To move the chart to another worksheet, on the Design tab, in the Location group, click the Move Chart button.
- Check the New sheet checkbox or check the Object in checkbox and click the sheet required.
- Click OK.
- Drag the chart to the location required.

6.1.4 **Resize a chart.**
- Select the chart.
- Drag the chart's sizing handles to the required size.

6.1.4 **Delete a chart.**
- Select the chart.
- Press the Delete key.

6.2 Edit

6.2.1 **Add a chart title**
- Select the chart.
- On the Layout tab, in the Labels group, click the Chart Title button.
- Click Centered Overlay Title or Above Chart.
- Enter the title required in the box that opens on the chart.

6.2.1 **Remove a chart title.**
- Select the chart title.
- Press the Delete key.

6.2.1 **Edit a chart title.**
- Select the chart title and edit as required.

6.2.2 **Add data labels to a chart: values/numbers, percentages.**
- Select the chart.
- On the Layout tab, in the Labels group, click the Data Labels button.
- Click the location required for the data labels.

6.2.3 **Change chart area background colour, legend fill colour.**
- Select the chart background or the legend to change.
- On the Format tab, in the Shape Styles group, click the Shape Fill button.
- Click the colour required.

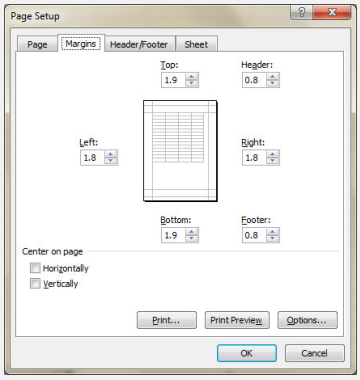
6.2.4 **Change the column, bar, line, pie slice colours in the chart.**
- Click the column, bar, line or pie slice of the chart to change.
- On the Format tab, in the Shape Styles group, click the Shape Fill button.
- Click the colour required.

6.2.5 **Change font size and colour of chart title, chart axes, chart legend text.**
- Select the chart title, chart axes or chart legend text to change.
- On the Home tab, in the Font group, click the Font Size or Font Color buttons.
- Click the font size or font colour required.

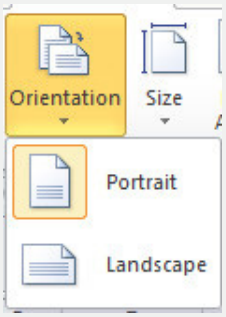
7 Prepare Outputs

7.1 Setup

7.1.1 **Change worksheet margins: top, bottom, left, right.**
- On the Page Layout tab, in the Page Setup group, click the Margins button.
- Click Custom Margins.
- On the Margins tab, enter values in the Top, Bottom, Left and Right boxes.
- Click OK.



7.1.2 **Change worksheet orientation: portrait, landscape.**



- On the Page Layout tab, in the Page Setup group, click the Orientation button.
- Click Portrait or Landscape.

7.1.2 **Change paper size.**
- On the Page Layout tab, in the Page Setup group, click the Size button.
- Click the paper size required.

7.1.3 **Adjust page setup to fit worksheet contents on a specified number of pages.**
- On the Page Layout tab, in the Scale to Fit group, click the number of pages required in the Width and Height boxes.

7.1.4 **Add text in headers, footers in a worksheet.**
- On the Insert tab, in the Text group, click the Header & Footer button.
- By default, the header section opens; to go to the footer, on the Design tab, in the Navigation group, click the Go to Footer button.
- Enter the text required in the required header and footer boxes.

7.1.4 **Edit, delete text in headers, footers in a worksheet.**
- On the Insert tab, in the Text group, click the Header & Footer button.
- By default, the header section opens; to go to the footer, on the Design tab, in the Navigation group, click the Go to Footer button.
- Edit or delete the text as required.

7.1.5 **Insert fields: page numbering information, date, time, file name, worksheet name into headers and footers.**
- On the Insert tab, in the Text group, click the Header & Footer button.
- On the Design tab, in the Header & Footer Elements group, click the Page Number, Current Date, Current Time, File Name or Sheet Name button as required.

7.1.5 **Delete fields in headers, footers: page numbering information, date, time, file name, worksheet name.**
- On the Insert tab, in the Text group, click the Header & Footer button.
- Select the header or footer fields for deletion.
- Press the Delete key.

7.2 Check and Print

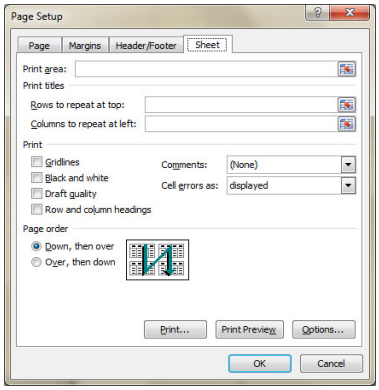
7.2.1 **Check and correct spreadsheet calculations.**
- On the Formulas tab, in the Formulas Auditing group, click the Error Checking button.
- When an incorrect formula is found, click Update Formula or Ignore Error.

7.2.1 **Check and correct spreadsheet text.**
- On the Review tab, in the Proofing group, click the Spelling button.
- When an incorrect spelling is found, click the correct spelling from the list and click Change.
- When a repeated word is found, click Delete.

7.2.2 **Turn on, off display of gridlines for printing purposes.**
- On the Page Layout tab, in the Sheet Options group, under Gridlines, check the Print checkbox

7.2.2 **Turn on, off display of row and column headings, for printing purposes.**
- On the Page Layout tab, in the Sheet Options group, under Headings, check the Print checkbox.

7.2.3 **Apply automatic title row(s) printing on every page of a printed worksheet.**



- On the Page Layout tab, in the Page Setup group, click the Print Titles button.
- Click the Rows to repeat at top box and click the row on the spreadsheet.
- Click OK.

7.2.4 **Preview a worksheet.**
- On the File tab, click Print.
- The print preview is displayed in the right pane.

7.2.5 **Print a selected cell range from a worksheet.**
- Select the cell range.
- On the File tab, click Print.
- Under Settings, click Print Active Sheets.
- Click Print Selection.
- Click Print.

7.2.5 **Print an entire worksheet, the entire spreadsheet.**
- On the File tab, click Print.
- Under Settings click Print Active Sheets or click Print Entire Workbook.
- Click Print.

7.2.5 **Print a number of copies of a worksheet.**
- On the File tab, click Print.
- In the Copies box, click or enter the number of copies to print.
- Click Print.

7.2.5 **Print a selected chart.**
- Select the chart.
- On the File tab, click Print.
- Under Settings, ensure Print Selected Chart is highlighted.
- Click Print.

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