

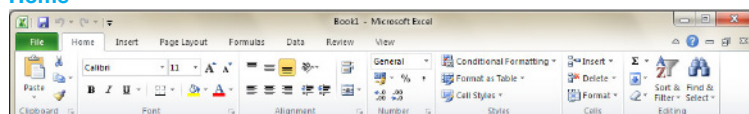
Spreadsheets

This quick reference is for Microsoft Excel 2010 on Windows 7

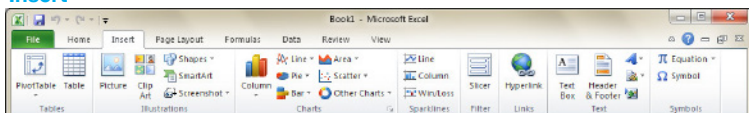
Quick Reference

Excel 2010 Tabs

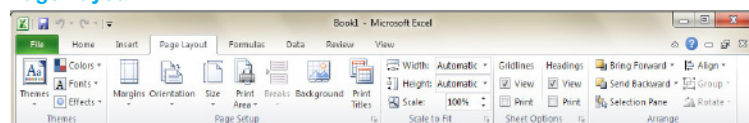
Home



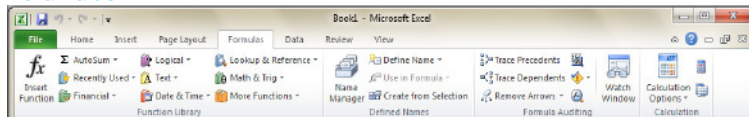
Insert



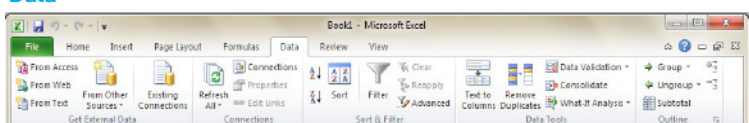
Page Layout



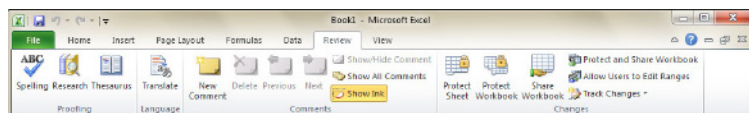
Formulas



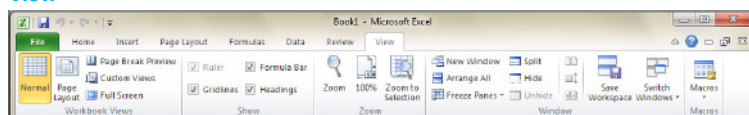
Data



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 checkbox 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

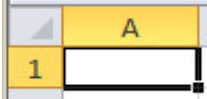
- 2.1.3 **Enter a number, date, text in a cell.**
- Click the cell.
 - Enter the number, date or text required.

- 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.

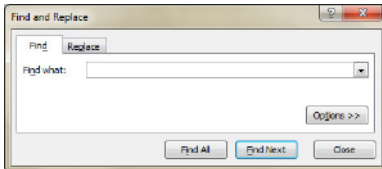
2.2 Edit, Sort

- 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.

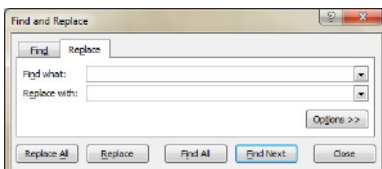
- 2.2.2 **Use the undo, redo command.**
- Go to the **Quick Access Toolbar**.
 - Click the **Undo** or **Redo** buttons.

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



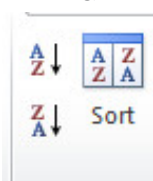
- On the **Home** tab, in the **Editing** group, click the **Find & Select** button.
- Click **Find**.
- Enter the word or phrase to find in the **Find what** box.
- Click **Find Next** to select the first occurrence of the word or phrase or click **Find All**.
- Click **Close**.

- 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.

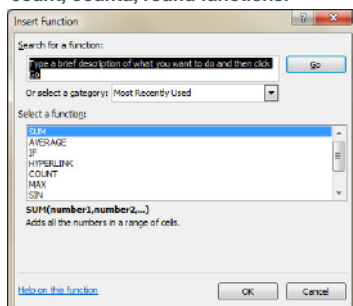
- A formula that contains **relative cell reference** will change when it is copied to other cells.
- A formula that contains an **absolute cell reference** always refers to a cell in a specific location and never changes when copied to other cells.

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: =, >, <.

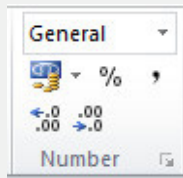
- The **if** function returns one value if a condition specified evaluates to **TRUE** and another value if it evaluates to **FALSE**.

- 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.

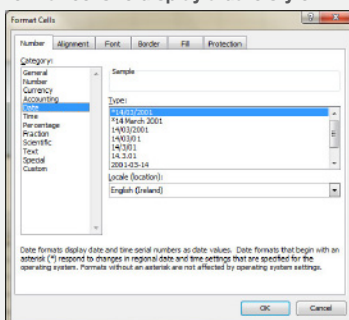


- Select the cell or cell range.
- On the **Home** tab, in the **Number** group, click the **Increase Decimal** or **Decrease Decimal** button.
- Each click will increase or decrease the number by one decimal.

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.

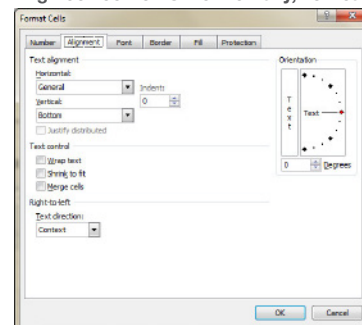
- Select the cell or cell range to copy from.
- On the **Home** tab, in the **Clipboard** group, click the **Format Painter** button.
- Click the cell or cell range to apply the format.

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.

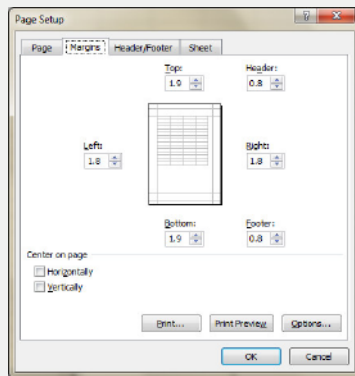
- Select the data on the spreadsheet.
- On the **Insert** tab in the **Charts** group, click the chart button required.
- Click the specific chart type required.
- The chart will appear on the spreadsheet.

- 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.

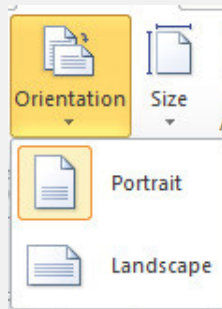
7 Prepare Outputs

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.

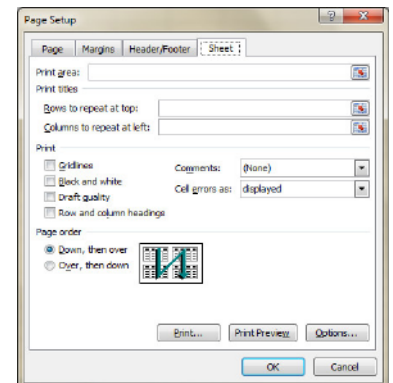
- 7.1.4 Edit, delete text in headers, footers in a worksheet.**
- On the **Insert** tab, in the **Text** group, click the **Header & Footer** button.
 - By default, the header section opens; to go to the footer, on the **Design** tab, in the **Navigation** group, click the **Go to Footer** button.
 -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

For more information, visit: www.icdl.org