ICDL

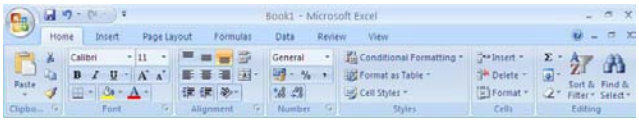
# Base Module - Spreadsheets

This quick reference is for Microsoft Excel 2007 on Windows XP

## Quick Reference

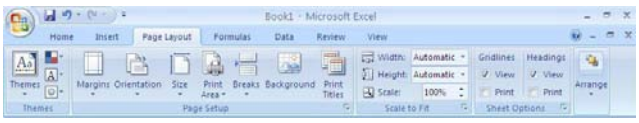
### Excel 2007 Tabs

**Home**

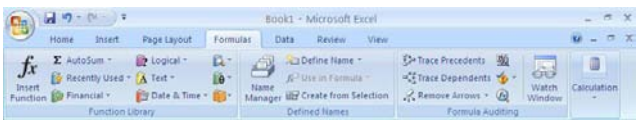


**Insert**

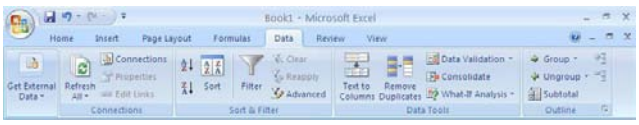
**Page Layout**



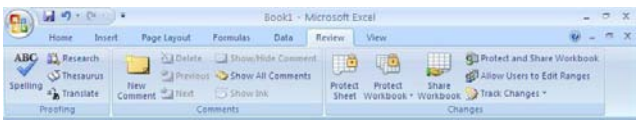
**Formulas**



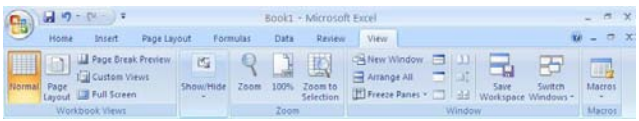
**Data**



**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

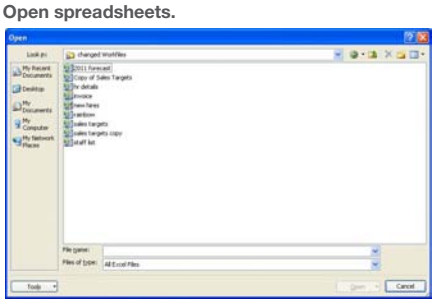
**1.1.1 Open a spreadsheet application.**

- Click the Start button.
- Select All Programs.
- Click Microsoft Excel 2007.

**1.1.1 Close a spreadsheet application.**

- Click the Office button.
- Click Exit Excel.

**1.1.1 Open spreadsheets.**



- Click the Office button.
- Click Open.
- Select spreadsheet(s) to open and click Open.

**1.1.1 Close spreadsheets.**

- Click the Office button.
- Click Close.

**1.1.2 Create a new spreadsheet based on default template.**

- Click the Office button.
- Click New.
- A blank workbook is highlighted, click Create.

**1.1.3 Save a spreadsheet to a location on a drive.**

- Click the Office button.
- Click Save.
- Create a file name and select the location.
- Click Save.

**1.1.3 Save a spreadsheet under another name to a location on a drive.**

- Click the Office button.
- Click Save As.
- Enter a new file name over the existing file name and select the location.
- Click Save.

**1.1.4 Save a spreadsheet as another file type like: template, text file, software specific file extension, version number.**

- Click the Office button.
- Click Save As.
- Click on the Save as type arrow and select 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 and then 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.**

- Click the Office button.
- Click Excel Options.
- On the Popular tab, enter a user name in the User name: text box.
- Click OK.

**1.2.1 Set basic options/preferences in the application: default folder to open, save spreadsheets.**

- Click the Office button.
- Click Excel Options.
- On the Save tab, enter a default file location in the Default file location text 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.
- Select the magnification required.
- Click OK.

**1.2.4 Restore, minimize the ribbon.**

- Double-click any tab to minimize the ribbon.
- Double-click any tab again to restore the ribbon.

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Screen shots used with permission from Microsoft.

## 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 into the cell.
- Enter a number, date or text.

**2.1.4 Select a cell.**

- Ensure the mouse cursor is a white cross.
- Click on the cell.

**2.1.4 Select a range of adjacent cells.**

- Ensure the mouse cursor is a white cross.
- Click into the first cell and drag to the last cell in the range.

**2.1.4 Select a range of non-adjacent cells.**

- Ensure the mouse cursor is a white cross.
- Select 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 into the cell.
- Edit content.

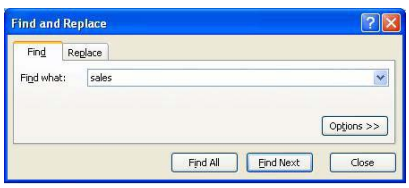
**2.2.1 Modify existing cell content.**

- Click into the cell.
- Enter additional content or delete existing content.

**2.2.2 Use the undo, redo command.**

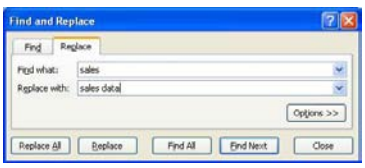
- Go to the Quick Access Toolbar.
- Click on the Undo or Redo buttons.

**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.

**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 find for replacement in the Find what box.
- Enter the word or phrase to replace in the Replace with box.
- Click Find Next to select the first occurrence of the word or phrase.
- Click Replace or Replace All.

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

- Click into the cell range to sort.
- On the Data tab, in the Sort & Filter group, click on one of the two Sort buttons.
- Click on the Sort A to Z button to sort in ascending order.
- Click on 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 content to copy.
- On the Home tab, in the Clipboard group, click the Copy button.
- Click on 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 content to move.
- On the Home tab, in the Clipboard group, click the Cut button.
- Click on 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 content to delete.
- Press the Delete key.

## 3 Managing Worksheets

### 3.1 Rows and Columns

**3.1.1 Select a row.**

- Click on the row heading.

**3.1.1 Select a range of adjacent rows.**

- Click on the first row heading.
- Drag to highlight through to the last row heading.

**3.1.1 Select a range of non-adjacent rows.**

- Click on 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 on the column heading.

**3.1.2 Select a range of adjacent columns.**

- Click on the first column heading.
- Drag to highlight through the last column heading.

**3.1.2 Select a range of non-adjacent columns.**

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

**3.1.3 Insert columns.**

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

**3.1.3 Delete rows.**

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

**3.1.3 Delete columns.**

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

**3.1.4 Modify row heights to a specified value, to optimal height.**

- Click on the row heading(s) 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, then 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 arrow.
- Click the Freeze Panes button.

**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 arrow.
- Click the Freeze Panes button.

**3.1.5 Unfreeze row and/or column titles.**

- On the View tab, in the Window group, click the Freeze Panes arrow.
- Click the Unfreeze Panes button.

### 3.2 Worksheets

**3.2.1 Switch between worksheets.**

- Click on 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 the Insert Sheet button.

**3.2.2 Delete a worksheet.**

- Select the sheet to delete.
- On the Home tab, in the Cells group, click the Delete arrow.
- Click the Delete Sheet button.

**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.
- Click Create a copy.
- 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 file 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 into the cell to enter the formula.
- Enter the = (equals) sign.
- Enter a formula using cell references and operators.

| Symbol | Arithmetic Operator |
|---|---|
| + | Addition |
| - | Subtraction |
| * | Multiplication |
| / | Division |

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

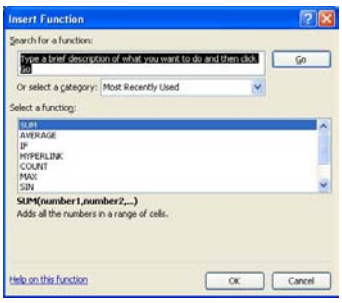
| Error | Cause |
|---|---|
| ##### | Column is not wide enough to display value |
| #Value! | Wrong type of argument or operand is used |
| #DIV/0! | Number is divided by zero |
| #NAME? | Doesn't recognize text in formula |
| #N/A | Value is not available to a function or formula |
| #REF! | Cell reference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

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

- A relative cell reference is based on the relative position of the cell that contains the formula and the cell the reference refers to.
- An absolute cell reference always refers to a cell in a specific location and is preceded by the $ sign.
- Press F4 after selecting cell to make it an absolute cell reference.
- Either the row or column reference will be preceded by the $ sign.

## 4.2 Functions

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




- Click into the cell to enter the formula.
- 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 text box.
- Click Go.
- Ensure the function is highlighted in the Select a function drop-down list.
- 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 into the cell to enter the formula.
- Enter if in the highlighted Search for a function text box.
- Click Go.
- Enter the arguments for the function.
- Click OK.

# 5 Formatting

## 5.1 Numbers/Dates

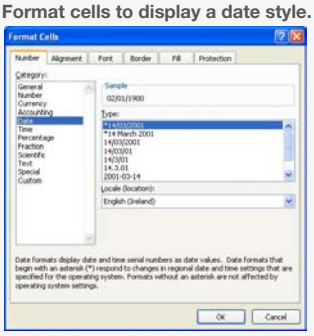
5.1.1 **Format cells to display numbers to a specific number of decimal places.**

- 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 arrow.
- Select Format Cells.
- On the Number tab, select the Date category.
- Select 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 Currency arrow.
- Click on a currency.

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.
- Select 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.
- Select 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 italicize 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.

4.5.2.3 **Apply different colors to cell content, cell background.**

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

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.
- Select 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 an Align button.

5.3.2 **Adjust cell content orientation.**

- Select the cell range.
- On the Home tab, in the Alignment group, click the Orientation arrow to select a cell content orientation.

5.3.3 **Merge cells and center a title in a merged cell.**
- Select the cell range.
- On the Home tab, in the Alignment group, click the Merge & Center arrow to select a merge option.

5.3.4 **Add border effects to a cell, cell range: lines, colors.**
- Select the cell range.
- On the Home tab, in the Font group, click the Border arrow to select border options.

# 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 cell range of data on the spreadsheet.
- On the Insert tab in the Charts group, click the chart preferred.
- Make chart type selection and finish steps in the Chart Wizard.

6.1.2 **Select a chart.**
- Click on 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.
- Select 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 new location.
- To move the chart to another worksheet, on the Design tab, in the Location group, click the Move Chart button.
- Select the new location.
- Click OK.

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

6.1.4 **Delete a chart.**
- Click on 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 arrow and click on a location for the chart title.
- Enter a title in the text box that opens on the chart.

6.2.1 **Remove a chart title.**
- Select the chart.
- On the Layout tab, in the Labels group, click the Chart Title arrow and select None.

6.2.1 **Edit a chart title.**
- Click in the chart title and edit the chart title 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 arrow and select a location for the data labels.

6.2.3 **Change chart area background color, legend fill color.**
- Select the chart background or the legend as desired.
- On the Format tab, in the Shape Styles group, click the Shape Fill arrow to select a color.

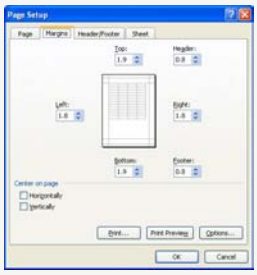
6.2.4 **Change the column, bar, line, pie slice colors in the chart.**
- Click into the column, bar, line or pie slice of the chart to change.
- On the Format tab, in the Shape Styles group, click the Shape Fill arrow to select a color.

6.2.5 **Change font size and color 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.

# 7 Prepare Outputs

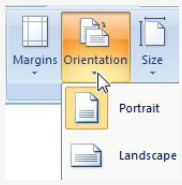
## 7.1 Setup

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 on Custom Margins.
- On the Margins tab, enter a top, bottom, left, right margin.
- 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.
- Select a paper size.

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, select the number of pages to fit the selection.

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, click the Go to Footer button.
- Enter the text required in the headers and footers.

7.1.4 **Edit, delete text in headers, footers in a worksheet.**
- On the Page Layout tab, in the Page Setup group, click the Page Setup group arrow.
- Click on the Header/Footer tab.
- Edit or delete the text.

7.1.5 **Insert fields into headers, footers: page numbering information, date, time, file name, worksheet name.**
- On the Insert tab, in the Text group, click the Header & Footer button.
- Use the available tool buttons to add field(s).

7.1.5 **Delete fields in headers, footers: page numbering information, date, time, file name, worksheet name.**
- On the Page Layout tab, in the Page Setup group, click the Page Setup group arrow.
- Click on the Header/Footer tab.
- Delete fields.

## 7.2 Check and Print

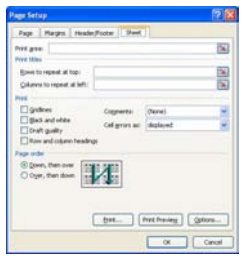
7.2.1 **Check and correct spreadsheet calculations.**
- On the Formulas tab, in the Formulas Auditing group, click the Error Checking button.
- When an incorrect formula is found, click Update Formula or Ignore Error.

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, select 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, click Print in the Gridlines group.

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, click Print in the Headings group.

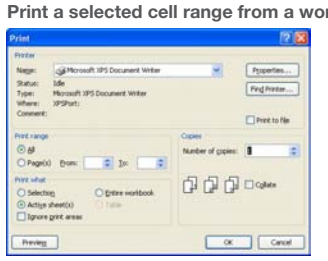
7.2.3 **Apply automatic title row(s) printing on every page of a printed worksheet.**



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

7.2.4 **Preview a worksheet.**
- Click the Office button.
- Select Print.
- Click Print Preview.

7.2.5 **Print a selected cell range from a worksheet.**



- Select the cell range.
- Click the Office button.
- Click Print.
- Under Print what, click Selection.
- Click OK.

7.2.5 **Print an entire worksheet, the entire spreadsheet.**
- Click the Office button.
- Click Print.
- To print an entire worksheet, under Print what, click Active sheet(s).
- To print the entire spreadsheet, under Print what, click Entire workbook.
- Click OK.

7.2.5 **Print a number of copies of a worksheet.**
- Click the Office button.
- Click Print.
- Under Copies, enter the number of pages to print.
- Click OK.

7.2.5 **Print a selected chart.**
- Select the chart.
- Click the Office button.
- Click Print.
- Click OK.

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