**CAT Grade 12: Additional Practical Activities**

**SOLUTIONS**

*It is important that you obtain practice in thinking for yourself first, and in looking through the Ribbon for the necessary commands to complete these activities. You won't get the same value out of the exercises if you simply look at the solutions straight away. So first try doing them by yourself, before looking at the solutions.*

**Activity 1 – Word processing**

Open the document **Line Numbers**.

1.1 Change the line numbers in the left margin to appear as follows:

* The line numbers must start at 10.
* Only every second line number must be displayed.
* The numbering must restart on each page.

Page Layout 🡪 Page Setup 🡪 Layout Tab 🡪 Line numbers 🡪 Start at 10, Count by 2, Numbering – Restart each page 🡪 OK 🡪 OK

Save and close the document **Line Numbers**.

Open the document **Responsible Use** (and use this document for the rest of Activity 1).

1.2 Change the Table of Contents on page 1 as follows:

1.2.1 The TOC must display page numbers instead of hyperlinks on a web page. (Assume that the document will be saved later as a single file web page file for viewing in a web browser.)   
 References Tab 🡪 Table of Contents 🡪 Custom Table of Contents 🡪 remove check mark from ‘Use hyperlinks instead of page numbers’ under Web Preview 🡪 OK 🡪 Do you want to replace... 🡪 Yes

1.2.2 Remove the heading ‘Responsible use of computers’ from the table of contents, but without removing the heading from the body of the document.

Ensure that the formatting of the heading remains as Arial 24 pt Bold, paragraph ‘after’ spacing 12 pt.

Home tab 🡪 Styles group 🡪 Open Styles box (small arrow bottom right) 🡪 Click on “Responsible use of computers” heading and change to ‘TOC Heading’ style 🡪 Right click on table of contents 🡪 Update Field 🡪 Update entire table 🡪 OK

Update the TOC Heading style to 24 pt Bold, paragraph ‘after’ spacing 12 pt.

1.2.3 Change the scale of the character spacing of the TOC to 110%.   
Select entire TOC 🡪 right-click TOC 🡪 Font… 🡪 Advanced tab 🡪 Scale 110% 🡪 OK

1.3 Add a shadowed paragraph border to the paragraph in red under the heading ‘Introduction’. The border must be 5 pt from the text on all 4 sides.  
Select paragraph 🡪 Borders and Shading… 🡪 select Shadow preset at left 🡪 Apply to Paragraph 🡪 Options 🡪 From text: all boxes 5 pt 🡪 OK 🡪 OK

1.4 Create a new label called ‘Image’ and add the caption ‘*Image 1: Computer viruses are bad news!*’ above the picture under the heading ‘Computer viruses’.  
Right-click image 🡪 Insert Caption… 🡪 New Label 🡪 Image 🡪 OK 🡪 enter caption text and select position ‘Above selected item’ 🡪 OK

1.5 Add the screen tip ‘Not used anymore’ to the hyperlink on page 2.  
Right-click hyperlink 🡪 Edit Hyperlink… 🡪 ScreenTip… 🡪 enter screen tip text 🡪 OK 🡪 OK

1.6 Insert the picture ‘Computer’ as a watermark only on page 3.  
Page Layout 🡪 Breaks 🡪 Next page section break (add in before and after page 3). Design 🡪 Watermark 🡪 Custom watermark 🡪 Picture watermark 🡪 Select Picture 🡪 Insert 🡪 OK 🡪 Right click edit header 🡪 Break ‘Link to previous’ in section 2 & 3. 🡪 Go to section 1 (still in the header), click on the picture and press delete 🡪 Repeat for section 3.

1.7 Set the absolute position of the image under the heading ‘Internet access’ to 6 cm below the top margin of the page.  
Select image 🡪 Format 🡪 Position (in Arrange group) 🡪 More Layout Options... set Vertical Absolute position 6 cm below Top Margin 🡪 OK

1.8 Locate the text ‘callmore time’ under the heading ‘Internet access’ on page 3.

Change the footnote to this text that reads ‘Telkom deal’, so that the footnote appears below the text on the page, and not at the bottom of the page.

Also change the number format to  .

Right click on footnote 🡪 Note Options 🡪 Location footnotes: (change to) Below text 🡪 Number format 🡪 Dropdown menu choose correct option 🡪 Apply.

1.9 Locate the text ‘Computer Use’ under the heading ‘Switching off the computer’.

Create a hyperlink on this text that points to the bookmark ‘ComputerUse’ in the file **Green Computing**.

Select and right click on text 🡪 Hyperlink 🡪 Link to: Existing File or Webpage 🡪 Current Folder 🡪 Select ‘Green Computing’ file 🡪 Click on Bookmark button to the right 🡪 Select ComputerUse 🡪 OK 🡪 OK

1.10 Locate the text ‘The cost of running a computer ... referring to <<>>’ under the heading ‘Switching off the computer’.

Replace the blue placeholder <<>> with a cross reference to the equation on the last page of the document.

Include only the caption text as a cross reference.

elect blue placeholder 🡪 References 🡪 Cross-reference (in Captions group) 🡪 Change Reference type to ‘Equation’ *[Equation 1 now appears in list box]* 🡪 change ‘Insert reference to’ to ‘Only caption text’ 🡪 Insert 🡪 Close

1.11 Add a text border to the text in blue ‘Paper and ink cost money!’ under the heading ‘Computer equipment and other media’.  
Select text 🡪 Borders and Shading… 🡪 select Box preset at left 🡪 Apply to Text 🡪 OK

1.12 Locate the line under the text ‘Number of times...’.

Replace this line with a red 2 pt horizontal line that is 10 cm wide, and centred across the page under the text.

Delete the existing line 🡪 Home tab 🡪 Paragraph group 🡪 Borders and shading drop down arrow 🡪 Horizontal Line 🡪 Double click line to edit 🡪 change Width: 10, Measure in: Centimeters, Height: 2 pt, Color: Red (use solid color), Alignment: Center 🡪 OK

1.13 Change the font colour of all instances of the whole word ‘computer’ (case sensitive) to green.  
Home tab 🡪 Editing group 🡪 Replace 🡪 in ‘Find what’ type ‘computer’ 🡪 click More >> 🡪 check ‘Match case’ and ‘Find whole words only’ 🡪 in ‘Replace with’ type ‘computer’ 🡪 click Format – Font… 🡪 change Font colour to green 🡪 OK 🡪 Replace All

Enter the number of times the whole word ‘computer’ (case sensitive) appears in the document, in the red text box on page 4.  
[28 times]

1.14 Add an Editor (metadata) property to the document, using your own name as the value.  
File Tab 🡪 Click on Properties top right panel 🡪 Advanced Properties 🡪 Custom Tab 🡪 Name: Editor 🡪 Type own name in Value box 🡪 Add 🡪 OK

1.15 Locate the fields and place holders near the bottom of page 4.

1.15.1 Locate the form field next to the text ‘School name’.

Add help text that will display ‘Enter the name of your school’ when the F1 key is pressed.  
Right-click field 🡪 Properties 🡪 Add Help Text… 🡪 click tab Help Key (F1) 🡪 type required text in box 🡪 OK [Note: pressing F1 key for this help text will only work if editing of document is restricted to filling in of forms]

Add default text to this form field that reads ‘ABC High’.  
Right-click field 🡪 Properties 🡪 Default text 🡪 type ‘ABC High’ 🡪 OK

1.15.2 Replace the yellow place holder next to the text ‘Document created by’ with the Author field.  
Select place holder 🡪 Insert tab 🡪 Quick Parts (in Text group) 🡪 Document Property (or Field…) 🡪 Author

1.15.3 Set the default value of the check box field next to the text ‘Spelling check performed’ to not checked.  
Right-click check box 🡪 Properties 🡪 change Default value to ‘Not checked’

1.15.4 Replace the green place holder next to the text ‘Total number of words in document’ with a field that displays the total number of words in the document.  
Select place holder 🡪 Insert 🡪 Quick Parts 🡪 Field… 🡪 NumWords 🡪 OK

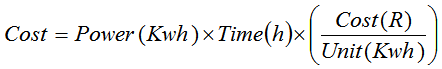
1.16 Locate the flag shape near the bottom of page 4.

Use the fill feature to fill the shape with the **Computer** picture.

Right-click shape 🡪 Format Shape… 🡪 Fill 🡪 Picture or texture fill 🡪 click File… 🡪 select picture 🡪 Insert

1.17 Locate the equation on the last page of the document. A part of the equation has been left out.

Refer to the following equation and add the part that was left out from the equation in the document:  
Right-click equation 🡪 Equation Object 🡪 Edit (Or just double-click the equation) 🡪 type in ‘Cost(R)’ in space provided



1.18 Mark all instances of the word ‘electricity’ as entries for an index.  
Find any instance of the word electricity (Ctrl+F) and select the word 🡪 References Tab 🡪 Index group 🡪 Mark Entry 🡪 Main entry: electricity 🡪 Mark All

1.19 Now insert an automatic index, with right-aligned page numbers, on the last page of the document. Use the default settings.  
Go to last page 🡪 References tab 🡪 Index group 🡪 Insert Index 🡪 Select ‘right align page numbers’ box 🡪 OK

Save and close the document **Responsible Use**.

**Activity 2 – Word processing (conditional mail merge)**

Open the document **Letter to parents** and perform the following conditional mail merge:

2.1 Replace the place holders with the corresponding fields in the source spreadsheet **Registration**.

Mailings Tab 🡪 Start Mail Merge 🡪 Letters 🡪 Select Recipients 🡪 Use an existing list 🡪 navigate to correct folder, choose Registration spreadsheet 🡪 Open 🡪 OK Replace all yellow fields with the corresponding mail merge field 🡪 Insert Merge Field.

Use an If...Then...Else mail merge rule to replace the He/She place holder with text based on the *Gender* field name. If the value of the field is *Male*, the text ‘He’ must be inserted, otherwise the text ‘She’ must be inserted.

Delete the Green words He/She 🡪 Mailings Tab 🡪 Write & Insert Fields group 🡪 Rules 🡪 If...Then...Else 🡪 Field name: Leaner\_Gender, Comparison: Equal to, Compare to: Male, Insert this text: He, Otherwise insert this text: She 🡪 OK

To check if done correctly: right-click on “He” (Merge field) – toggle field codes

{ IF { MERGEFIELD Learner\_Gender } = "Male" "He" "She" }

Save the document **Letter to parents** just before you complete the merge.

2.2 Complete the mail merge, by merging only records 2–7, and save the merged document with the name **Letter to parents MERGED**.

Mailings tab 🡪 Finish & Merge 🡪 Edit individual documents 🡪 From 2 to 7 🡪 OK

Save and close both the documents.

**Activity 3 – Spreadsheet**

Open the spreadsheet **Cellphone Users**. Work in the **Data** worksheet.

3.1 Insert a comment in cell C2 that reads ‘Check cellphone number’.   
Right-click cell 🡪 Insert Comment

3.2 The dates of birth of the users are stored in column D.

Use a function in cell F3 to display the number of the birth month of Sheree Leverington.  
Use YEAR function – see solution

3.3 Use an appropriate lookup function in cell G5 to determine the service provider of Ryan Nase.

Note that the first three digits of the cellphone number represent the service provider.

The lookup table required is stored in the **Service Providers** worksheet.  
Use HLOOKUP and LEFT functions – see solution

3.4 Use a formula in cell I8 to calculate Sinikwe Hoyi’s age in 2016 (i.e. how many years old she will be on her birthday in 2016).  
Use YEAR and TODAY functions – see solution

3.5 Use a spreadsheet feature to force the user to enter a valid cellphone number (i.e. one that contains exactly 10 digits/characters) in column C.

Add a suitable error message that the user will receive if he/she tries to enter invalid data.

*Hint:* Use Data Validation.  
Select column C 🡪 Data 🡪 Data Validation 🡪 Settings tab 🡪 Text length 🡪 change both Minimum and Maximum values to 10 🡪 Error Alert 🡪 type suitable Error message (Accept any Title and Style)

3.6 Use conditional formatting to automatically apply the ‘3 Flags’ icon set format style on all the values in column H.

Use the following categories:

* Red flag: >= 750
* Yellow flag: 400 – 749
* Red flag: 0 – 399

Select column H 🡪 Conditional Formatting 🡪 Icon Sets 🡪 More Rules… 🡪 Icon Style = 3 Flags 🡪 Reverse Icon Order (to ensure that red flag appears as first rule) 🡪 change red flag Type = Number, Value = 750, 🡪 Change yellow flag Type = Number, Value = 400, 🡪 OK

3.7 Use conditional formatting to automatically apply a 2-colour scale format style on all the values in column I (Age in 2016).

Change the colours of the minimum and maximum values as follows:

* Minimum (lowest value): green
* Maximum (highest value): blue

Select column I 🡪 Color Scales 🡪 More Rules… 🡪 Format all cells based on their values 🡪 Format Style = 2-Color Scale 🡪 Change Lowest Value colour to green, Highest Value colour to blue

3.8 Locate the chart **Average data used (MB) per age group** and do the following:

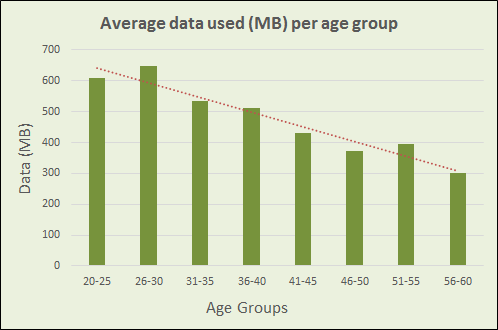
* Remove only the Primary Minor Horizontal gridlines.

Select chart 🡪 Design (in Chart Tools) 🡪 Add Chart Element 🡪 Gridlines 🡪 deselect Primary Minor Horizontal gridlines [Quicker: select relevant gridlines directly on chart and press Delete]

* Insert a linear trend line.

Select chart 🡪 Design (in Chart Tools) 🡪 Add Chart Element 🡪 Trendline 🡪 select Linear

Your chart should appear as follows:



3.9 Locate the chart **Gender distribution per age group** and do the following:

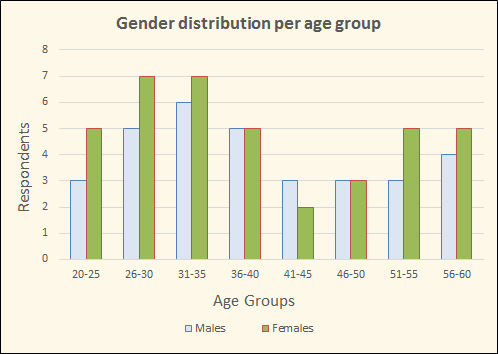
* Remove the Blank series (there must only be two series, i.e. Males and Females).

Right-click chart 🡪 Select Data… 🡪 click on Blank series 🡪 Remove 🡪 OK

* Change the ‘Females’ data series to display as clustered columns, similar to the ‘Males’ data series.

Right-click line representing Females data series 🡪 Change Series Chart Type… 🡪 change Females series to Clustered Column 🡪 OK

Your chart should appear as follows:



3.10 Locate the pie chart **Sample Group** and do the following:

* Change the chart to a Doughnut chart.

Right-click chart 🡪 Change Chart Type… 🡪 select Doughnut (sub-type of Pie) 🡪 OK

* The doughnut hole size must be 30%.

Right-click Doughnut series 🡪 Format Data Series… 🡪 change Doughnut Hole Size to 30%

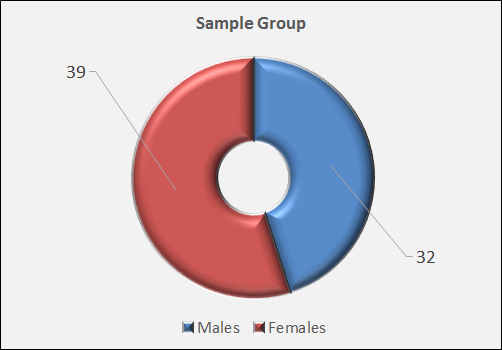
* The chart must have any 3-D bevel effect.

Right-click Doughnut series 🡪 Format Data Series… 🡪 Effects (5-sided command icon at top) 🡪 3-D FORMAT 🡪 change Top bevel (can also increase Width and Height of bevel to e.g. 12 pt to make it stand out more)

* Show the Leader Lines that connect each data label to its slice.

Right-click Doughnut series 🡪 Format Data Labels… 🡪 check Show Leader Lines

Your chart should appear similar to the following:



3.11 Filter the data so that those who do not have a cell phone number in the worksheet are not displayed.Data tab 🡪 Filter (in Sort & Filter group) 🡪 click down-arrow in cell C1 (CellNo) 🡪 Text Filters 🡪 Contains… 🡪 enter asterisk (\*) in box at right 🡪 OK

Save and close the spreadsheet.

**Activity 4 – Database**

Open the database **ArtExhibition**.

4.1 Make the following changes to the design of the **Applications** table:

4.1.1 Change a field property of the **CellNo** field so that the user is forced to enter data in this field AND to accept no duplicates. Do NOT change the primary key. Ignore any warning messages that may appear.  
Set Indexed property of CellNo field to Yes (No Duplicates)

4.1.2 Change a field property of the **Exhibition** field to display check boxes instead of Yes/No.  
Select Exhibition field in Design View 🡪 click Lookup tab at bottom 🡪 change Display Control to Check Box

4.2 Create a query called **Summary** based on the **Applications** table that will display the total amount raised per school per category, as shown in the table below.

*Hint:* Use the **Totals** command in the **Design** tab, and *aggregate functions*.

Create a query (can use the Wizard), adding only the School, Category and Price fields 🡪 Design View 🡪 Click Totals command in Design tab 🡪 change Total row as follows: School field = ‘Group By’, Category field = ‘Group By’, Price field = ‘Sum’



4.3 Import the data of the **Contacts** worksheet of the **School Contact Persons** spreadsheet as a linked table into the database. Use the same name as the spreadsheet worksheet for the table.  
External Data tab 🡪 Import & Link group 🡪 Excel 🡪 browse for spreadsheet School Contact Persons 🡪 click bottom radio button ‘Link to the data source by creating a linked table’ 🡪 OK 🡪 Next 🡪 check ‘First Row Contains Column Headings’ 🡪 Next 🡪 Finish

4.4 Set the properties of the form **Entry Form** so that users will not be able to delete any data.  
Open form in Design View 🡪 Property Sheet (in Design tab, Tools group) 🡪 in drop-down box at top, ensure that Selection type is ‘Form’ 🡪 Data tab 🡪 change Allow Deletions to ‘No’

4.5 A report **SchoolCategories** has been created. The records have been grouped according to the **School** field.

* Base the report on the **Categories** query.

Open report in Design View 🡪 Property Sheet (in Design tab, Tools group) 🡪 in drop-down box at top, ensure that Selection type is ‘Report’ 🡪 Data tab 🡪 change Record Source to ‘Categories’

* Ensure that each school starts on a new page.

Open report in Design View 🡪 click on School Header band 🡪 Property Sheet (in Design tab, Tools group) 🡪 in drop-down box at top, ensure that Selection type is ‘GroupHeader0’ 🡪 Format tab 🡪 Force New Page, select ‘Before Section’

Close the database.

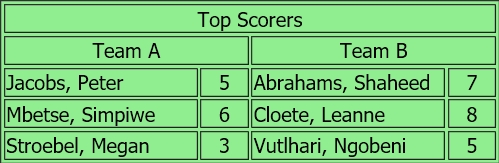
**Activity 5 – HTML**

Open the web page **Table Practice** in a browser and also in a text editor.

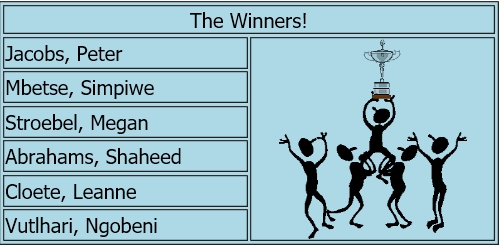
Use the **COLSPAN** and **ROWSPAN** attributes to make the green and blue tables appear as shown below.  
See solution. To display the image in the blue table, change the file name in HTML code from ‘Winers.png’ to ‘Winners.png’ (or rename the image as ‘Winers.png’).  
COLSPAN and ROWSPAN attributes need practice!

*Note: These two attributes are used to merge cells in a table, as in Word and Excel. COLSPAN merges rows, and ROWSPAN merges columns (the reverse of what you might expect). Study the HTML code carefully before you make any changes.*

The GREEN table should look like this:



The BLUE table should look like this:



Save and close the web page.

**Activity 6 – General**

Extract the file from the **LionLove** compressed file to your exam folder.   
Use WinZip / other file extractor