Level 3 Designing and producing spreadsheets to analyse information (7266/7267-043)

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e-Quals
Assignment guide for Candidates
Assignment A

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City & Guilds
1 Giltspur Street
London EC1A 9DD
T +44 (0)20 7294 2800
F +44 (0)20 7294 2400
www.cityandguilds.com
learnersupport@cityandguilds.com

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Level 3 Designing and producing spreadsheets to analyse information (7266/7267-043)

Assignment A

Introduction – Information for Candidates

About this document

This assignment comprises all of the assessment for Level 3 Designing and producing spreadsheets to analyse information (7266/7267-028).

Health and safety

You are responsible for maintaining the safety of others as well as your own. You are asked to work safely at all times.

You will **not** be allowed to continue with an assignment if you compromise any of the Health and Safety requirements.

Time allowance

The recommended time allowance for this assignment is **two and a half hours**.

Level 3 Designing and producing spreadsheets to analyse information (7266/7267-043)
Candidate instructions

Time allowance: Two and a half hours

The assignment:

This assignment is made up of **four** tasks

- **Task A** – Setting up and preparing a spreadsheet
- **Task B** – Importing and editing data in a spreadsheet
- **Task C** – Performing calculations using functions and formulas
- **Task D** – Display data using pivot tables and graphical representation

Scenario

You work as statistical analyst for a furniture shipping company. You have been asked to set up import and manipulate various company information in order to show sales and stock levels.

Save your files frequently (at least after each task) with suitable version control numbering to enable you to revert to a previous spreadsheet should you need to.

Read all of the instructions carefully and complete the tasks in the order given.

Task A – Setting up and preparing a spreadsheet

1 In your user area or on removable media create a folder called **Product**.

2 Open a spreadsheet application with three worksheets and name these worksheets:

- **Catalogue**
- **Costing**
- **Analysis**.

3 Import the datafile **Catalogue.txt** (provided by your assessor) into the **Catalogue** worksheet starting in cell **A1**, this is a comma separated value file.

Continued over…

4 On the **Catalogue** worksheet format **row 1** to wrapped text. Change the width of **column A** to **20** and the remaining data columns to **15**. Ensure that **all** column headings are fully displayed.

Format **all** row and column headings as **bold**.

Format the data in the rows headed **Machinery**, **Rent/Rates**, **Materials**, **Power**, **Shipping** and **Machinery In Place** as currency (local symbol) to **zero** decimal places.

Define the range **B1** to **O9** to a named range using name **Product_Value**.

5 Save your spreadsheet in your **Product** folder using the filename **Product 1**.

Task B – Importing and editing data in a spreadsheet

1 Import the datafile **Costing.txt** into the **Costing** worksheet starting in cell **A1**, this is a comma separated value file. Add the local currency symbol after the headings in **F1** and **G1**.

Name the cell **B1** as **Product** .

2 Add the name of the first product in the catalogue from the **Catalogue** worksheet, **Apothecary Chest 9** in cell **B1**. Name the cell **B2** as **Min_Unit_Cost** and enter the value **45**.

Format **B2** to **B14** as currency (local symbol) to **two** decimal places.

3 In cell **B5** enter a function using the named ranges to look up the **Product** from the **Catalogue** worksheet and returns the value for **Machinery**.

Copy to cells **B6**, **B10**, **B11**,**B12** and **B16** adjusting as required.

In cell **B7** enter a formula/function using the range to sum the total **Fixed Costs**.

4 In cell **B13** enter a function using your named ranges which looks up the value for the **Annual Volume** for the product in the **Catalogue** worksheet. If it is less than **1000** returns the value for **4** times the **Min_unit_Cost** as the variable costs for labour, but otherwise **3** times the **Min_unit_Cost**.

5 In cell **B14** enter a function which uses the range to return the sum of the variable costs.

6 The **Selling Price** is calculated by dividing the sum off the **Total Fixed Costs** and **Total Variable Costs** by the **Target Quantity**. In cell **F2** enter a formula/function which calculates the **Selling Price** by adding a profit margin of **40%**. Format this cell to currency to **two** decimal places.

7 Create a data table using the range **F2:012** where the row input cell is **B14** and the column input cell is **B16**.

Format the data table range **G3:O12** as currency to **2** decimal places with no currency symbol.

Continued over…

8 Set your page to show the costing worksheet in **formula view** with row and column headings and gridlines, add a footer to include the **today's date**, **your name** and **Printout1** as a footer.

Print this in **landscape** orientation fit to **one** page by **one** page, ensuring **all** data is fully displayed.

Save your file as **Product 2** and revert to **standard** view.

Task C – Performing calculations using functions and formulas

1 Import the datafile **Analysis.txt** into the **Analysis** worksheet starting in cell **A1**, this is a comma separated value file.

In cell **B3** display the **Total Fixed Costs** by using a cell reference on the **Costing** worksheet.

In cell **B4** display the **Total Variable Costs** by using a cell reference on the **Costing** worksheet.

2 The **Selling Price per Unit** is the average of the selling prices in the cell range **G3:O12** on the **Costing** worksheet.

In cell **B5** enter a formula/function to return the **Selling Price per Unit** rounded to the nearest whole currency unit (£ or €) and deducting 1 unit of the smallest currency (ie 1 penny/cent) from the total.

3 Edit the **Units Sold To Break Even** label in cell **A6** to read **Target Quantity Break Even**. Cell **B6** needs to show the sum of the **Total Fixed Costs** and **Total Variable Costs** divided by **Selling Price per Unit**.

Enter a function in cell **B6** to calculate the **Target Quantity Break Even** rounded down to **zero** decimal places.

4 The **Total Cost** column needs to be completed by calculating the **Total Variable Costs** divided by the **Target Quantity** (as a reference from the Costing worksheet) multiplied by **Units Sold** plus **Total Fixed Costs**.

Enter a formula and replicate data down to cell **E20**.

5 The **Sales Income** column needs to be completed.

Enter a formula to calculate the income and replicate data down to cell **F20**.

Continued over…

6 **Profit** is obtained using the formula **Sales Income –Total Cost**.

Enter a formula to calculate the **Profit** and replicate data down to cell **G20**.

Format all cells in columns **E** and **F** as currency to **zero** decimal places and column **G** as currency to **2** decimal places.

Save your spreadsheet as **Product 3**.

Task D – Display data using pivot tables and graphical representation

1 Create a pivot table in a new worksheet that can be used to filter the **Units Sold** and to display the Sum of Sales **Income**, **Sum of Total Cost** and **Sum of Profit**. Edit the column headings to display **Cost**, **Income** and **End Profit**.

Add a **3d** column graph to visually represent these three fields and place the graph below your pivot table.

Use the filter to show a **Units Sold** value of **100** and ensure your graph updates to show the relevant data.

Save your worksheet as **Product 4**.

2 In the **Costing** worksheet change the value of **Product_Name** in cell **B1** to **B/Front Bookcase**.

Name the worksheet with the pivot table **Graphic Rep** and amend the units sold to filter to **350**. Refresh all data and save as **Product 5**.

3 On the **Analysis** worksheet use **goal seek**, or similar techniques, to change the value of the **Selling Price per Unit**, displayed in cell **B5**, to **21.99** (showing local currency) by modifying only the value of **Machinery Cost** for **B/Front Bookcase** in cell **G4** on the **Catalogue** worksheet.

Save your completed spreadsheet as **Product Final**.

When you have finished working:

- Sign each document above your name and label all removable storage media with your name.
- Hand all paperwork and removable storage media to your assessor.

If the assignment is taken over more than one period, all paperwork and removable media must be returned to the test supervisor at the end of each sitting.

End of assignment

Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)20 7294 2468
F +44 (0)20 7294 2400
www.cityandguilds.com

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