



Cambridge International AS & A Level

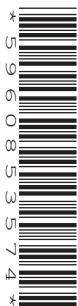
INFORMATION TECHNOLOGY

9626/02

Paper 2 Practical

October/November 2024

2 hours 30 minutes



You will need: Candidate source files (listed on page 2)

INSTRUCTIONS

- Carry out every instruction in each task.
- Save your work using the file names given in the task as and when instructed.
- You must **not** have access to either the internet or any email system during this examination.
- You must save your work in the correct file format as stated in the tasks. If work is saved in an incorrect file format, you will **not** receive marks for that task.

INFORMATION

- The total mark for this paper is 90.
- The number of marks for each question or part question is shown in brackets [].

This document has **8** pages. Any blank pages are indicated.

You have been supplied with the following source files:

n24audio.mp3
n24chain.csv
n24cust.csv

You must use the most efficient method to solve each task. All documents produced must be of a professional standard and suit the business context.

You work for Jenna's Jewellery and will develop a spreadsheet to calculate the cost of making necklace chains.

Note:

- all currency values must be displayed in dollars (\$) to 2 decimal places
- all weight values must be displayed to 3 decimal places.

1 Open and carefully examine the file **n24chain.csv** in a spreadsheet. The values in cells T3 to V3 are changed frequently.

Merge cells:

- A1 to R1
- A17 to R17
- A30 to R30

Format each of these merged cells so that they contain a black 16-point, bold, centre-aligned, sans-serif font on a yellow background.

Merge cells:

- T1 to V1
- T17 to V17

Format each of these merged cells so that they contain a black 12-point, bold, centre-aligned, sans-serif font on a yellow background.

Format rows 2, 3, 4 and 18 to look like this:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	Weight of metal in ounces																	Cost per ounce				
2			Metal	Silver	Gold	Gold	Gold	Platinum	Platinum													
3	Length	Length	Style	Silver	Gold	Gold	Gold	Platinum	Platinum													
4	Inches	Centimetres	Code	C1	C2	C3	D1	D2	D3	D4	E2	E3	C1	C2	C4	C3	C4					
5	14			0.735	0.882	1.103	1.323	1.433	1.544	1.709	1.250	1.470	1.351	1.621	2.297	2.247	2.547					
6	15			0.798	0.945	1.181	1.418	1.536	1.654	1.831	1.339	1.575	1.448	1.737	2.461	2.408	2.729					
7	16			0.840	1.008	1.260	1.512	1.638	1.764	1.953	1.428	1.680	1.544	1.853	2.625	2.568	2.910					
8	17			0.893	1.071	1.339	1.607	1.740	1.874	2.075	1.517	1.785	1.641	1.969	2.789	2.729	3.092					
9	18			0.945	1.134	1.418	1.701	1.843	1.985	2.197	1.607	1.890	1.737	2.084	2.953	2.889	3.274					
10	19			0.998	1.197	1.496	1.796	1.945	2.095	2.319	1.696	1.995	1.834	2.200	3.117	3.050	3.456					
11	20			1.050	1.260	1.575	1.890	2.048	2.205	2.441	1.785	2.100	1.930	2.316	3.281	3.210	3.638					
12	21			1.103	1.323	1.654	1.985	2.150	2.315	2.563	1.874	2.205	2.027	2.432	3.445	3.371	3.820					
13	22			1.155	1.386	1.733	2.079	2.252	2.426	2.685	1.964	2.310	2.123	2.548	3.609	3.531	4.002					
14	23			1.208	1.449	1.811	2.174	2.355	2.536	2.807	2.053	2.415	2.220	2.663	3.773	3.392	4.184					
15	24			1.260	1.512	1.890	2.268	2.457	2.646	2.930	2.142	2.520	2.316	2.779	3.937	3.852	4.366					
16	25			1.313	1.575	1.969	2.363	2.559	2.756	3.052	2.231	2.625	2.413	2.895	4.101	4.013	4.548					
17	Weight of metal in grams																	1 ounce = 28.3495 grams				
18	14																	Ounces	Grams			
19	15																	1	28.3495			

Change the worksheet name to something more appropriate. Save your workbook as a spreadsheet with the file name **n24chain1_** followed by your centre number_candidate number. For example, n24chain1_ZZ999_9999

[7]

2 Place in cell E18 a replicable formula to convert the weight in ounces (held in cell E5) into grams. The information in columns T, U and V will help you.

Replicate this formula for all other chain styles and sizes.

[3]

3 Place in cell E31 a replicable formula to calculate the cost of the metal used to make each chain. The cost of metal is the weight of the metal multiplied by the cost per ounce for that type of metal.

Replicate this formula for all other chain styles and sizes.

[8]

4 Place formulas in appropriate cells in column B to calculate the length of each chain, rounded down to the nearest centimetre.

1 inch = 2.54 centimetres.

[5]

5 Place in cell E4 a formula that does **not** use the concatenate function to extract the first character from cell E2 and concatenate it with the *Style* for this item.

Replicate this formula for all other codes.

[6]

6 Apply appropriate formatting to the cells containing numeric values.

Save your workbook.

[2]

7 Add a new worksheet called **User Interface** to your workbook.

[1]

8 In the *User Interface* worksheet, enter the text shown and format it to look like this:

	A	B
1		Cost calculator
2		<i>Please select the chain code and required length using the drop-down menus.</i>
3		
4		Chain code
5		Length in centimetres
6		
7		Metal selected
8		Weight of metal in grams
9		Cost of metal

[6]

9 In cells B4 and B5, create drop-down menus to select the chain code and length.

[5]

10 In cell B7, use a function to look up the type of metal selected using the *Chain code*.

[4]

11 In cell B8, use INDEX and MATCH functions to display the weight of metal in grams for the selected *Chain code* and *Length in centimetres*.

[10]

12 In cell B9, use INDEX and MATCH functions to display the cost of metal for the codes and lengths selected from the drop-down menus.

[10]

13 Apply appropriate formatting to column B of this worksheet.

Save your workbook.

[1]

14 Create a new word-processed document. Save this document in rich text format with the file name **n24Evidence_** followed by your centre number **_candidate number**.

For example, **n24Evidence_ZZ999_9999**

Model this spreadsheet, placing screenshots of both the data entered and the results in your evidence document. Use the following data:

- Code = SE3 and length is 63 cm
- Code = GC2 and length is 50 cm

[4]

15 Change the price of gold to 1900 dollars per ounce. Model this spreadsheet with a chain code of GC2 and a chain length of 50 cm.

Place screenshots showing both the data entered and the results in your evidence document.

[2]

16 Open the file **n24audio.mp3** in a suitable audio-editing package.

Change the speed of the track so that it is twice the original speed.

Change the pitch of the track from the key of B into the key of **C#/D♭**.

Trim the length of the clip so that only the first 35 seconds remain.

Mix down the tracks so that the finished soundtrack is monophonic.

Set a 2-second fade-out on the track.

Export the file in **.wav** format as **n24audio_** followed by your centre number **_candidate number**.

Export the file in **.ogg** format as **n24audio_** followed by your centre number **_candidate number**.

[9]

Jenna's Jewellery requires a small flat-file database to hold details of their customers.

17 Open and carefully examine the data in the file **n24cust.csv**

In your evidence document, create a data dictionary for a flat-file database normalised to the first normal form (1NF), using this data.

Save your evidence document.

[7]

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