



Cambridge International AS & A Level

INFORMATION TECHNOLOGY

9626/02

Paper 2 Practical

February/March 2023

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:

m23logo.png
 m23sizes.csv
 m23sound.mp3
 m23tiler1.mp4
 m23tiler2.mp4

You will create a spreadsheet for a tiler to calculate the number of tiles required to tile a wall.

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.

1 Create a new spreadsheet that looks like this:

	A	B	C
1	Tile Calculator		
2			
3	Length of wall	3	metres
4	Height of wall	2	metres
5	Is there a window?		
6			
7	Tile size		
8	Tile orientation		
9			
10	Length of window	1	metres
11	Height of window	1	metres
12			
13	Horizontal tile size		centimetres
14	Vertical tile size		centimetres
15			
16	Number of tiles - no window		
17	Number of tiles - with window		
18			
19	A Candidate ZZ999 9999		

Format the merged cell A1 to C1 to have white 36 point font on a red background. Centre align all cells in column B. Replace the text in cell A19 with your name, centre number and candidate number.

Save your spreadsheet with the file name **Tiles_** followed by your centre number_candidate number
 e.g. Tiles_ZZ999_9999 [8]

2 Open a separate worksheet in your workbook using an appropriate worksheet name and import the data from the file **m23sizes.csv**

Examine this data. Enter formulae in column C to display the *Size* of each tile as *Length x Width*

For example, if the tile has a length of 60 and a width of 30 the cell should display 60 x 30 [4]

3 In the worksheet created in step 1, make sure that cell B5 can only contain a blank cell or the letters Y or N in upper or lower case. Add appropriate text for the user. Do **not** include a drop down menu. [6]

4 In cell B7 make sure that a user can select from a drop down list containing the *Size* of the tiles from step 2. [3]

5 In cell B8 make sure that a user can select from a drop down list containing only **Landscape** and **Portrait**. This cell must **not** be blank. [3]

6 Enter a formula in cell B13 that uses the orientation of the tile and the tile size to display the horizontal tile size. For example, if the tile is 60 x 30 and is in portrait orientation the cell should display 30. If this tile was in landscape orientation the cell would display 60.

Enter a formula in cell B14 that uses the orientation of the tile and the tile size to display the vertical tile size. [8]

7 Enter a formula in cell B16 to calculate the number of tiles required for a wall with no window.

To calculate the number of tiles on a wall, the tiler calculates the number of tiles required horizontally and multiplies this by the number required vertically.

1 metre = 100 centimetres.

If a tile has to be cut, it will count as a full tile used.

Add 5% to the number of tiles in case of breakage. [10]

8 Enter a formula in cell B17 to calculate the number of tiles required for a wall with a window.

The tiler:

- calculates the number of tiles for the whole wall. If a tile has to be cut, it will count as a full tile used.
- calculates the number of **full** tiles that would have been used for the window area. Do **not** include any part tiles.
- subtracts the number of tiles for the window area from the number of tiles for the whole wall.

Add 10% to the number of tiles in case of breakage. [7]

- 9 Place formulae in your spreadsheet so that if the tile is square the contents of the cells in A8 and B8 are **not** visible.

Place formulae in your spreadsheet so that when the letter **N** is placed in cell B5 the contents of the cells in the ranges A10:C11 and A17:B17 are **not** visible.

Place formulae in your spreadsheet so that when the letter **Y** is placed in cell B5 the contents of the cells in the range A16:B16 are **not** visible.

Save this spreadsheet with the file name **Tiles1_** followed by your centre number_candidate number

e.g. Tiles1_ZZ999_9999

[10]

- 10 Test this spreadsheet with the following test data and save each test as a spreadsheet with the given file name followed by your centre number_candidate number
e.g. Tiles2_ZZ999_9999

File name

Tiles2_ A wall 3 metres long and 2 metres high with no window. The tile size is 50 x 25 centimetres. The tiles will be set in landscape orientation.

Tiles3_ A wall 3 metres long and 2 metres high with no window. The tile size is 30 x 30 centimetres.

Tiles4_ A wall 5 metres long and 2.4 metres high with a window 1 metre long and 1.2 metres high. The tile size is 60 x 30 centimetres. The tiles will be set in landscape orientation.

Tiles5_ The same wall as *Tiles4_* with the same tiles set in portrait orientation.

[12]

You work for Tracy's Tilers who are creating a number of instructional video clips showing how to tile a room.

You will create one of these short video clips. All video and audio clips must be of a professional standard.

- 11 Open the file **m23tiler1.mp4** in your video editing software. Set the aspect ratio to 16:9. Splice the file **m23tiler2.mp4** to the end of this clip and add a suitable transition between these clips. Remove all sound from the combined clip. Remove the end of the combined clip so that only the first 41 seconds remain.

Add the soundtrack **m23sound.mp3** to the clip so that the soundtrack ends as the video ends. Apply an appropriate fade out to this soundtrack.

Save your video clip in **.mp4 format** with a resolution of 854 × 480 and the file name **Tiler_** followed by your centre number_candidate number

e.g. Tiler_ZZ999_9999

[9]

12 Edit your video clip to match this storyboard:

Time:

0 seconds:

Take a still image from the first frame of the video clip and set this as a background image. Place the name of the company as a title in the top right corner in a serif font.

4 seconds:

Keep the same background image and title.
Add the text **Window reveals** below the title.
Add the logo **m23logo.png** like this:



8 seconds:

A smooth transition into the video file saved at step 11.

End.

Save your video clip in **.mp4 format** with a resolution of 854 × 480 and the file name **Window_** followed by your centre number_candidate number
e.g. Window_ZZ999_9999

[10]

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