



# Cambridge International AS & A Level

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## INFORMATION TECHNOLOGY

9626/04

Paper 4 Advanced Practical

May/June 2022

2 hours 30 minutes



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

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### 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 [ ].

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This document has **8** pages.

You have been supplied with the following source files:

**MarchMerits.csv**  
**Merits.csv**  
**Scene1.png**  
**Sunset.jpg**

Create a folder called **Examination**. You must save all your work in this folder.  
Copy these files into this folder.  
Do **not** delete these files when submitting your work.

*You must use the most efficient methods to solve each task. All work produced must be of a professional standard and contain your candidate details.*

### Task 1

Open **Scene1.png** in a graphics application.



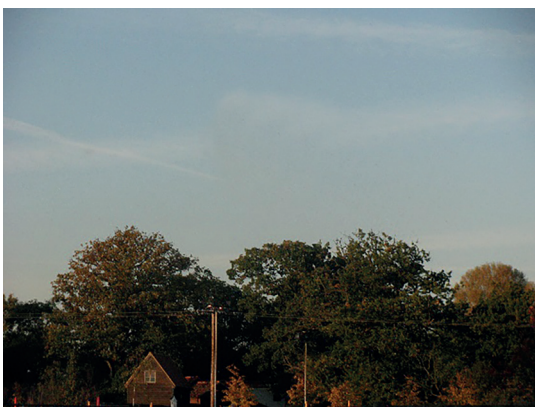
Extract a copy of only the balloon.

The size of the image of the balloon must be 3000 pixels wide by 2250 pixels high.

The balloon must have a transparent background.



Save the image as **Balloon1\_** followed by your centre number\_candidate number  
e.g. Balloon1\_ZZ999\_9999



Repair the sky and save a copy of the scene without the balloon.

Save the image as **Scene2\_** followed by your centre number\_candidate number  
e.g. Scene2\_ZZ999\_9999

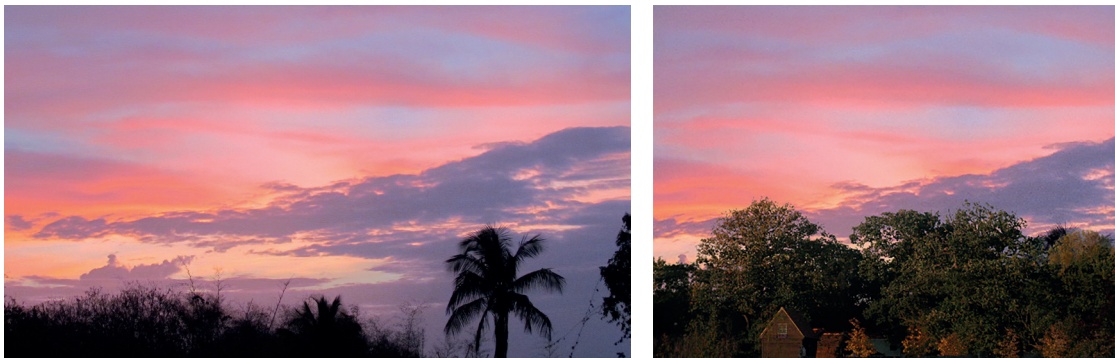
Without cropping, remove all traces of the posts, fence and wires that are shown in the *Scene2\_* image.



Save the complete image as **Scene3\_** followed by your centre number\_candidate number  
e.g. Scene3\_ZZ999\_9999

Open **Sunset.jpg** in a graphics application.

Replace all the sky in your *Scene3\_* image with a suitable section of the sky shown in the *Sunset.jpg* image.



Save the image as **Scene4\_** followed by your centre number\_candidate number  
e.g. Scene4\_ZZ999\_9999

[25]

**Task 2**

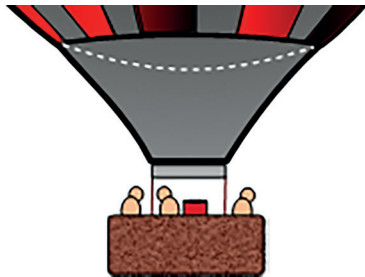
Create a vector graphic image of this balloon.

Use your *Balloon1\_* image as a template for the proportions of the balloon and the size and positions of the panels.

Use gradient fills to create the impression of curves in the balloon, the panels and the text.

Make sure the proportions of the basket and the passengers match those shown in this image.

Make sure the basket has a pattern fill.



Save the image as a **scalable vector graphic** (.svg) as **Balloon2\_** followed by your centre number\_ candidate number  
e.g. Balloon2\_ZZ999\_9999

[25]

### Task 3

Students at Tawara High School can be awarded Merits for good performance or Demerits for poor performance in these 5 categories:

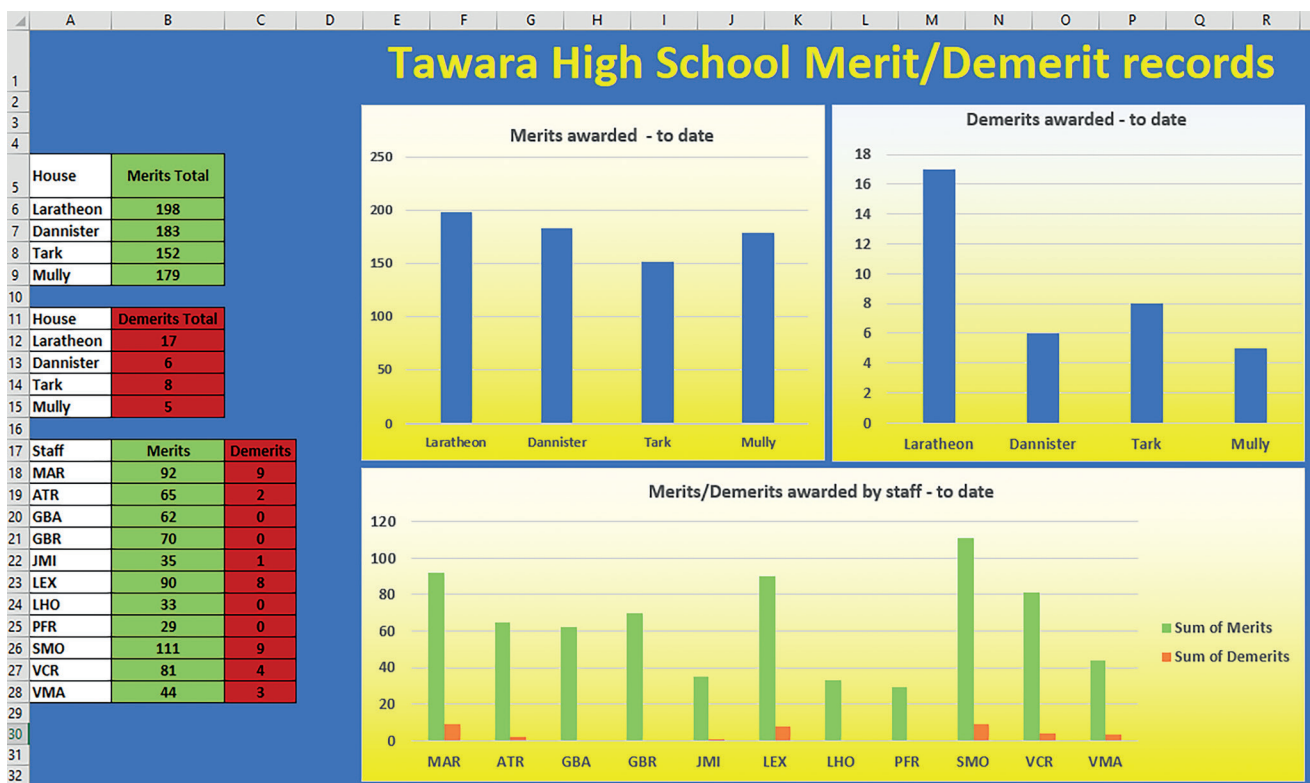
Academic  
Behaviour  
Arts  
Social  
Sports.

All students are members of one of four Houses:

Laratheon  
Dannister  
Tark  
Mully.

The Merits.csv file contains details of the Merits and Demerits awarded to students in January and February 2022.

Open and examine **Merits.csv** and use this to create a spreadsheet as a dashboard to look like this:



**Note:** The totals and values shown in the examples are not correct for the data in the source file.



The dashboard must display tables and charts as shown in these examples:

### Example 1

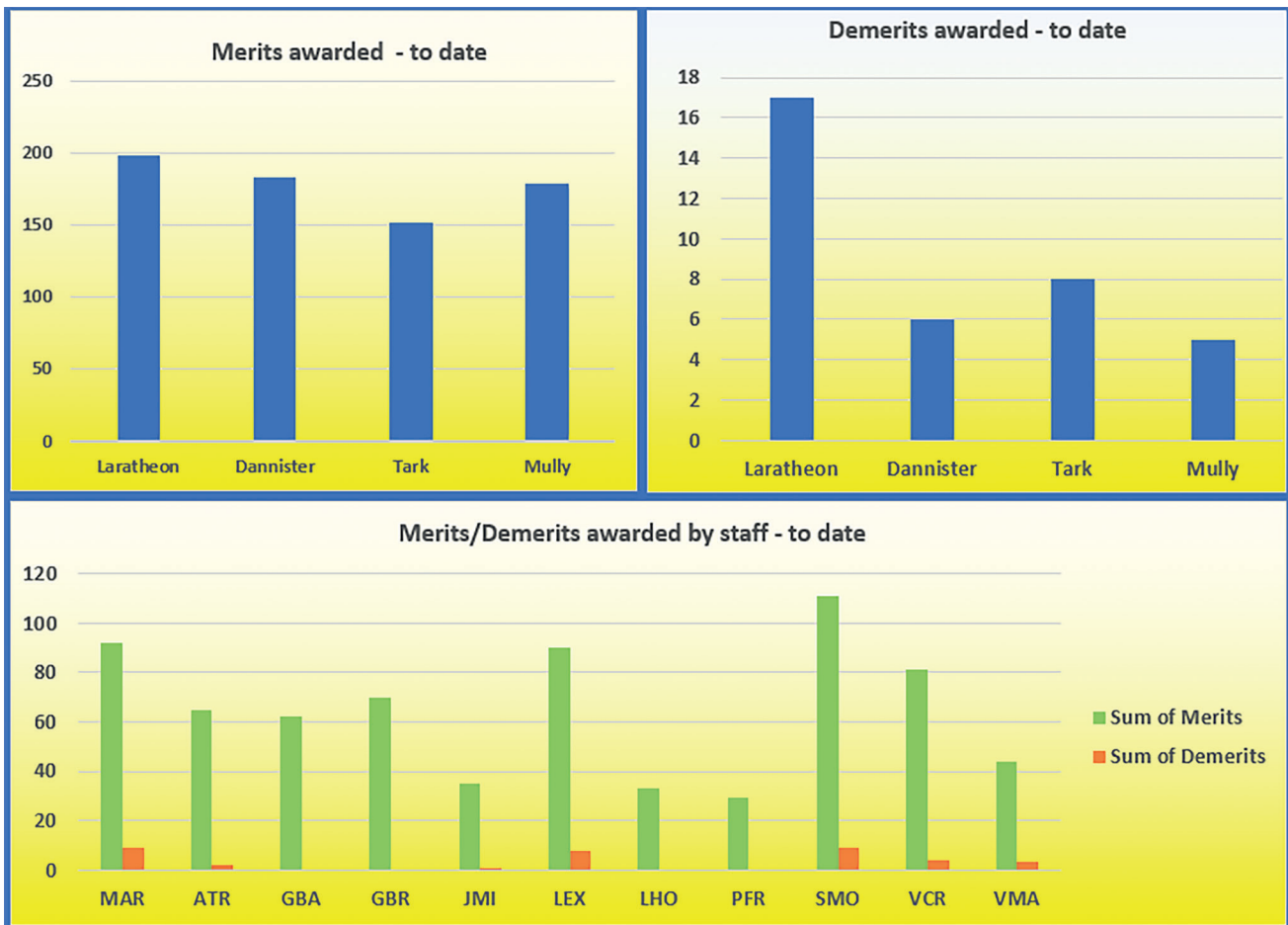
Tables showing the number of Merits and Demerits awarded to each house and the number awarded by each member of staff.

5	House	Merits Total	
6	Laratheon	198	
7	Dannister	183	
8	Tark	152	
9	Mully	179	
10			
11	House	Demerits Total	
12	Laratheon	17	
13	Dannister	6	
14	Tark	8	
15	Mully	5	
16			
17	Staff	Merits	Demerits
18	MAR	92	9
19	ATR	65	2
20	GBA	62	0
21	GBR	70	0
22	JMI	35	1
23	LEX	90	8
24	LHO	33	0
25	PFR	29	0
26	SMO	111	9
27	VCR	81	4
28	VMA	44	3

These tables must be dynamic.

### Example 2

Charts showing the number of Merits and Demerits awarded to each house and the number awarded by each member of staff.



**Note:** The totals and values shown in the examples are not correct for the data in the source file.

Set:

- all text as sans-serif
- all text as bold
- the dashboard heading to 36pt
- the chart headings to 14pt
- all other text to 12pt
- the dashboard background, table and chart columns to the colours shown
- each chart background with a yellow gradient fill.

Save the workbook as **JanFebMerits\_** followed by your centre number\_candidate number  
e.g. JanFebMerits\_ZZ999\_9999

[25]

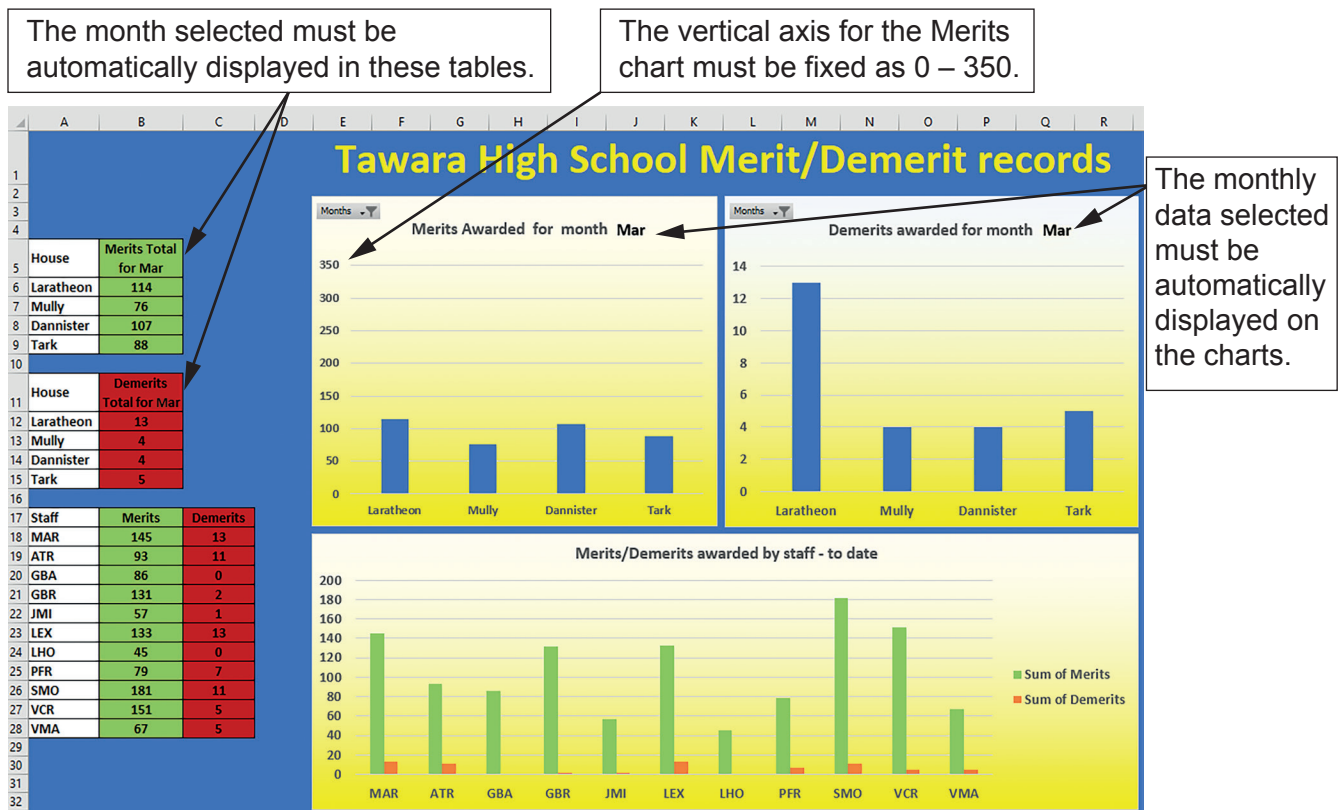
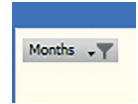
**Please turn over for Task 4**

### Task 4

Update the *JanFebMerits* data with the records in the **MarchMerits.csv** file.

Save the workbook as **Merits\_1stQuarter2022\_** followed by your centre number\_candidate number  
e.g. Merits\_1stQuarter2022\_ZZ999\_9999

Amend the dashboard so that users may select to view the Merits and Demerits data for individual months or the totals for all months.



**Note:** The totals and values shown in the example are not correct for the data in the source file.

Resave your workbook.

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