



# Cambridge IGCSE™

---

## INFORMATION AND COMMUNICATION TECHNOLOGY

0417/31

Paper 3 Spreadsheets and Website Authoring

May/June 2024

2 hours 15 minutes



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

---

### INSTRUCTIONS

- Carry out **all** instructions in each step.
- Enter your name, centre number and candidate number on every printout before it is sent to the printer.
- Printouts with handwritten candidate details will **not** be marked.
- At the end of the examination, put all your printouts into the Assessment Record Folder.
- If you have produced rough copies of printouts, put a cross through each one to indicate that it is **not** the copy to be marked.
- You must **not** have access to either the internet or any email system during this examination.

### INFORMATION

- The total mark for this paper is 70.
- 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:

j2431contact.jpg  
 j2431divers.csv  
 j2431location.jpg  
 j2431logo.png  
 j2431splendid.csv  
 j2431splendid.jpg  
 j2431style.css  
 j2431text.txt

*You will assist some marine biologists in analysing data on, and raising awareness of, the splendid toadfish. This is an endangered species only found in the reefs of Cozumel, Mexico.*

### Task 1 – Evidence Document

Create a new word-processed document.

Make sure your name, centre number and candidate number will appear on every page of this document.

Save this document in your work area as **j2431evidence\_** followed by your centre number\_candidate number, for example j2431evidence\_ZZ999\_9999

You will use this as your Evidence Document during the examination.

### Task 2 – Spreadsheet

#### 1 Open and examine the file **j2431divers.csv**

This file will be used in Step 2. Do **not** make any changes to this file.

Open and examine the file **j2431splendid.csv** in a spreadsheet.

*Rows 9 to 32 will show the number of sightings of the splendid toadfish on each reef for one week in February. Rows 35 onwards show the details of all sightings for this week.*

Place your name, centre number and candidate number left-aligned in the footer.

Place the automated file name with no file path on the right in the footer.

Save this as a spreadsheet with the filename **Splendid\_** followed by your centre number\_candidate number, for example Splendid\_ZZ999\_9999

[2]

#### 2 Place a replicable formula in cell C35 to look up the type of diver, using their name and the external file *j2431divers.csv* for the array.

Replicate this formula for all divers.

[7]

#### 3 Place in cell B3 a formula to count the total number of sightings for a 7 day period.

[2]

- 4 Place in cell B4 a formula to count the total number of sightings for a 7 day period where a photograph was taken. [3]
- 5 Place in cell B5 a formula to count the total number of sightings for a 7 day period where a photograph was taken that held the GPS location of the fish. [3]
- 6 Place a replicable formula in cell B9 to display the number of sightings at this reef where a photograph with GPS was taken.

Replicate this formula for each reef.

[7]

- 7 Format the top of your spreadsheet so that it looks like this:

|    | A                                      | B                          |
|----|----------------------------------------|----------------------------|
| 1  | <b>Splendid toadfish sightings</b>     |                            |
| 2  |                                        |                            |
| 3  | Number of sightings in 7 day period    | 41                         |
| 4  | Number of sightings with photograph    | 34                         |
| 5  | Number of sightings with photo and GPS | 30                         |
| 6  |                                        |                            |
| 7  | <b>Location with photo and GPS</b>     | <b>Number of sightings</b> |
| 8  | <b>Reef name</b>                       |                            |
| 9  | Maracaibo                              | 1                          |
| 10 | Chun Chacaab                           | 0                          |

Make sure cells A1 to B1 and B7 to B8 are merged.

Set the font size of the text in row 1 to 22 points.

Save your spreadsheet.

[5]

- 8 Select only cells A1 to C75 and print these cells with the formulae displayed. Make sure:
- the printout is in landscape orientation
  - the row and column headings are displayed
  - the contents of these cells are fully visible.

[2]

- 9 Select rows 1 to 8 inclusive and only the rows between 9 and 32 where a sighting took place.

Take a screenshot of the method used to select these rows (between 9 and 32). Place this screenshot in your Evidence Document.

Print this selection showing the values. Make sure:

- the printout fits on a single page
- the printout is in portrait orientation
- the row and column headings are displayed
- the contents of all the cells in the selected rows are fully visible.

[4]

[Total: 35]

### Task 3 – File management

- 10 Create a new folder called **j2431**

Locate only the following files and store them in your *j2431* folder.

**j2431contact.jpg**  
**j2431location.jpg**  
**j2431logo.png**  
**j2431splendid.jpg**  
**j2431style.css**  
**j2431text.txt**

Display the contents of your *j2431* folder, showing the folder name, all file names, file extensions, file sizes and image dimensions.

Take a screenshot of this folder, making sure that the required information is clearly visible. Place this screenshot in your Evidence Document.

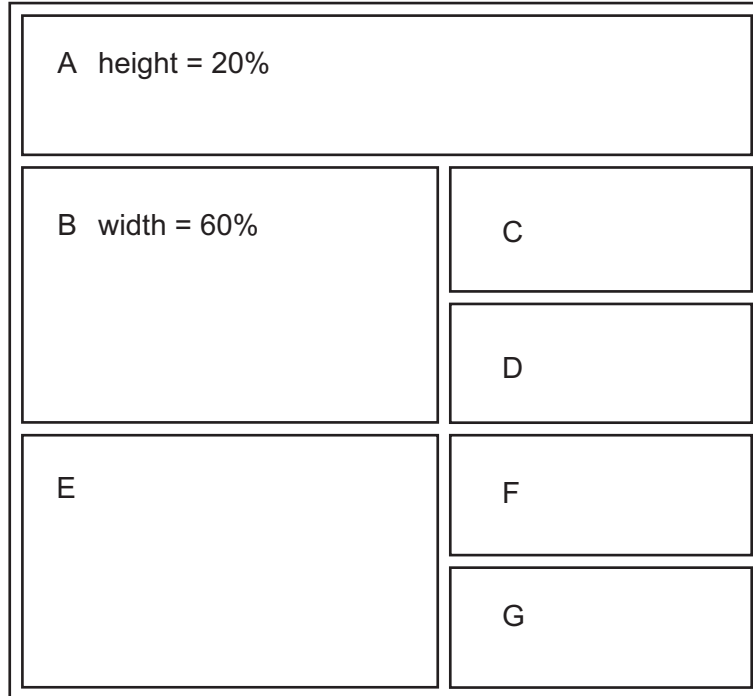
[1]

[Total: 1]

### Task 4 – Web Page

- 11 Create a web page called **splendid.htm** and save this in your *j2431* folder.

This web page must be created using a single table and work in all browsers. The table must fit 85% of the browser window and have a structure as shown in this diagram:



Each table cell is identified with a letter. The cell contents shown in the diagram must **not** appear on the final web page.

Table borders must **not** appear on the final web page.

[8]

- 12 Set the title of the web page to **Splendid toadfish**

[1]

- 13 Enter in cell A the text **Conserve our endangered species**

Enter in cell C the text **Splendid toadfish**

Set the text in cells A and C as style h1.

[3]

- 14 Enter in cell G the text:

**Created by:** followed by your name, centre number and candidate number.

Set this text as style h2.

[2]

15 Place in cell:

- B the image **j2431splendid.jpg**
- D the image **j2431contact.jpg**
- F the image **j2431location.jpg**

[1]

16 Add appropriate alternate text to all images.

[1]

17 Place in cell E the text from the file **j2431text.txt**

Set each of these three paragraphs into paragraph style.

[2]

18 Attach the stylesheet **j2431style.css** to your web page. Do **not** edit this stylesheet.

[1]

19 Create a new stylesheet so that:

- the file **j2431logo.png** is placed as a single background image in the top-left corner of the window
- the table is right-aligned within the browser window
- h1, h2 and the paragraph style use the:
  - font **Times**
  - font **Times New Roman** if *Times* is not available
  - browser's default serif font if neither of these fonts is available
- h1, h2 and the paragraph style are bold
- the paragraph style is fully justified
- your name, centre number and candidate number are set as a comment at the top of the stylesheet.

Make sure that your stylesheet contains no HTML or scripting language and is as efficient as possible.

Save this stylesheet, in your *j2431* folder, in cascading stylesheet format as **j2431css2\_** followed by your centre number\_candidate number, for example **j2431css2\_ZZ999\_9999**

Attach this stylesheet to your web page so that it has higher priority than the one attached in Step 18.

Take a screenshot of your stylesheet and place this in your Evidence Document. Make sure the file name and all contents are clearly visible.

[14]

**20 Save your web page.**

Take a copy of your HTML source and place this in your Evidence Document.

Display your web page in a browser. If necessary, resize it so that:

- all the page can be seen
- all text can be easily read
- the address bar is fully visible.

Take screenshot evidence showing your web page in the browser. Place this in your Evidence Document.

[1]

[Total: 34]

**Task 5 – Printing the Evidence Document**

Make sure your name, centre number and candidate number appear on every page of your Evidence Document.

Save your Evidence Document.

Print your Evidence Document.

**BLANK PAGE**

---

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at [www.cambridgeinternational.org](http://www.cambridgeinternational.org) after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.