



MINISTRY OF EDUCATION, SINGAPORE
in collaboration with
CAMBRIDGE INTERNATIONAL EDUCATION
Secondary Education Certificate

G1 COMPUTING

K127/02

Paper 2 Lab-based

For examination from 2027

SPECIMEN PAPER

2 hours



You will need:

- Electronic version of APPLE.sprite3
- Electronic version of FUNFACT.docx
- Electronic version of MAZE.svg
- Electronic version of NEWSLETTER.docx
- Electronic version of PANDA1.png
- Electronic version of PANDA2.png
- Electronic version of PANDA3.png
- Electronic version of PANDAPLAY.mp4
- Electronic version of PPSALES.xlsx
- Electronic version of PRETEXT.rtf

INSTRUCTIONS

- Answer **all** questions.
- You must do all the tasks using an authorised computer. You are **not** allowed to bring in or take out any pieces of work or materials on paper or electronic media or in any other form.
- Save your work using the file name given in the question.
- Save each task as you complete it.
- You may use an approved calculator.

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 **12** pages.



Singapore Examinations and Assessment Board



CAMBRIDGE
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You are required to complete three tasks.

- For task 1, you will draw a logo and create a slide presentation that uses the logo.
- For task 2, you will complete a spreadsheet and create a newsletter.
- For task 3, you will create a game.

Task 1 – Media software

A company called Panda Palace wants you to draw a logo and create a slide presentation to advertise the company.

Open your presentation software.

- 1 Draw the logo shown in Figure 1.1.

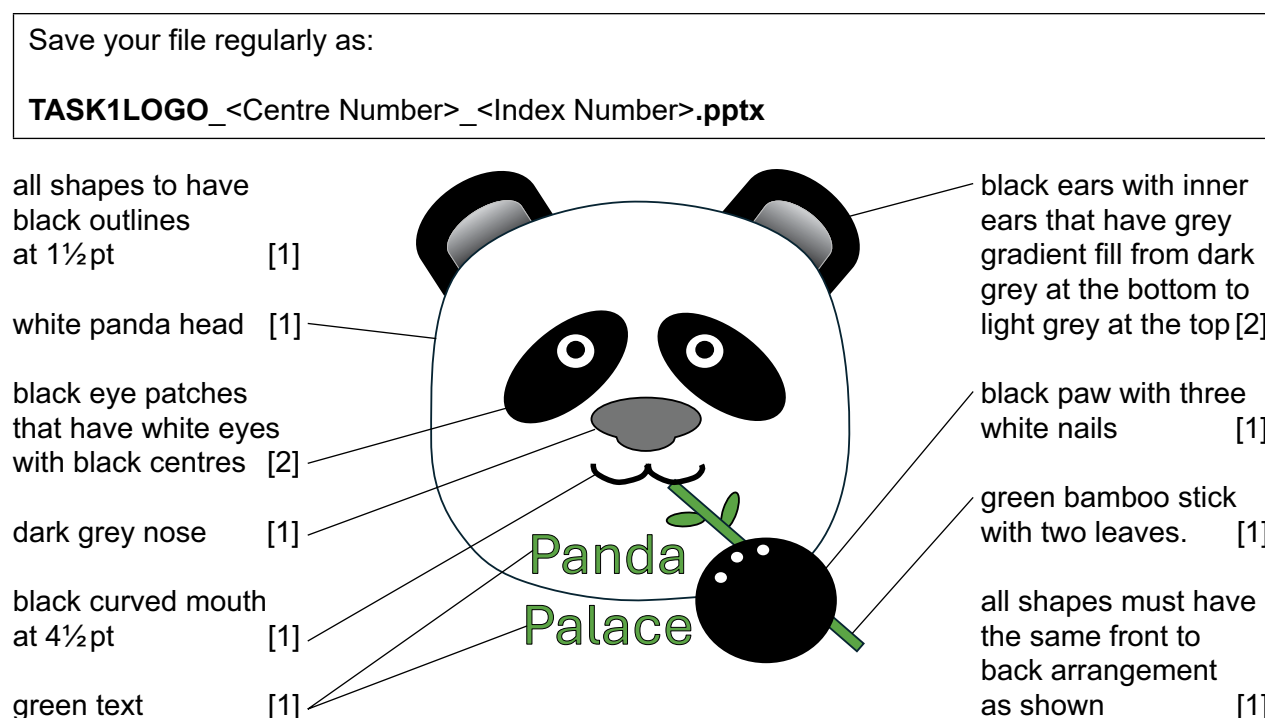


Figure 1.1

Save your file.

- 2 Export the logo as a raster graphic with a transparent background in png format. [1]

Save your file as:

TASK1LOGO_<Centre Number>_<Index Number>.png

3 You have been given five files:

- **PANDA1.png**
- **PANDA2.png**
- **PANDA3.png**
- **PANDAPLAY.mp4**
- **PRETEXT.rtf**

Create a presentation using the text in the file **PRETEXT.rtf**. Edit your presentation to match the storyboard shown in Figure 1.2.

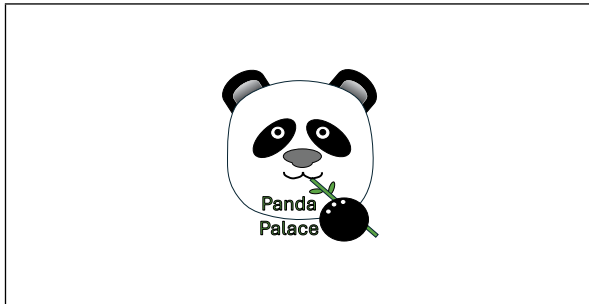
Make sure that you:

- insert your exported logo, **TASK1LOGO.png**, that you created into slide 1
- insert the image files and video file into the slides as shown on the storyboard.

Save your file regularly as:

TASK1PRES_<Centre Number>_<Index Number>.pptx

Slide 1



Slide 2

The Bear Family

PANDA1.png

The giant panda is the rarest member of the bear family.

Slide 3

Endangered Pandas

PANDA2.png

Giant pandas are amongst the world's most endangered animals.

Slide 4

Panda Palace

PANDA3.png

Here at Panda Palace, we give giant pandas a happy place to stay when they are injured.

Slide 5

Panda Play

PANDAPLAY.mp4

Figure 1.2

[6]

- 4 Position **TASK1LOGO.png** in the centre of slide 1.

Resize your logo to 12 cm high.

[2]

- 5 Add the fade transition to slide 1.

Set the duration of the transition to 2 seconds.

Add the wipe transition to slides 2 to 5.

Set the duration of each transition to 0.5 seconds.

[2]

- 6 Use the slide master to format the title on each slide to be:

- dark blue text
- point size 54.

Use the slide master to format the main text on each slide to be:

- Baskerville Old Face
- point size 40.

[4]

- 7 Set slides 1 to 4 to advance automatically after 3 seconds for each slide.

Set the movie **PANDAPLAY.mp4** on slide 5 to play automatically.

[3]

Save your file.

[Total: 30]

Task 2 – Document processing and spreadsheets

Customers can visit Panda Palace to see the pandas.

Panda Palace wants you to:

- complete a spreadsheet about customer sales
- create a newsletter for customers.

Spreadsheet

Open the file **PPSALES.xlsx** and you will see the data shown in Figure 2.1.

	A	B	C	D	E	F	G
1			sales table				
2		month	number of sales	total sales revenue		ticket price	5.5
3		January	756				
4		February	659			number of months above 1000 sales	
5		March	987			highest number of sales	
6		April	1004				
7		May	1286			month	April
8		June	1598			total sales revenue	
9		July	2001				
10		August	1759				
11		September	1234				
12		October	998				
13		November	785				
14		December	813				
15							
16		average number of sales					
17		total number of sales					
18							
19		number of sales for June from 2015 to 2025					
20		year	number of sales	total sales revenue			
21		2015	946	\$5,203.00			
22		2016	1050	\$5,775.00			
23		2017	1046	\$5,753.00			
24		2018	1102	\$6,061.00			
25		2019	1120	\$6,160.00			
26		2020	1236	\$6,798.00			
27		2021	963	\$5,296.50			
28		2022	850	\$4,675.00			
29		2023	1234	\$6,787.00			
30		2024	1387	\$7,628.50			
31		2025	1598	\$8,789.00			

Figure 2.1

Save your file regularly as:

TASK2SS_<Centre Number>_<Index Number>.xlsx

8 Set the format of cell **G2** to display the value in dollars (\$) to 2 decimal places

[1]

- 9 Set the text in cells **B16** and **B17** as right-aligned.
Wrap the text in both cells so that it displays across multiple lines. [2]
- 10 In cell **C16**, enter a formula that uses functions to calculate the average for **number of sales**.
The **average number of sales** value must be rounded to 0 decimal places in the formula. [2]
- 11 In cell **C17**, enter a formula that uses a function to calculate the total for **number of sales**. [2]
- 12 In cell **G4**, enter a formula that uses a function to count the number of months that have more than 1000 for **number of sales**. [3]
- 13 In cell **G5**, enter a formula that uses a function to find the highest value for **number of sales**. [2]
- 14 In cell **D3**, enter a formula to calculate the **total sales revenue**. This is based on the **number of sales** for the month and the **ticket price** in cell **G2**.
Copy your formula to all cells from **D4** down to **D14**. [3]
- 15 In cell **G8**, enter a formula that uses a function to display the **total sales revenue** for the month entered into cell **G7**. The **total sales revenue** must be referenced from the **sales table**.
April has been entered into cell **G7** as a test month for you. [3]
- 16 Sort the **sales table** from largest to smallest based on the **number of sales** column. [2]

- 17 Use the data from the **number of sales for June from 2015 to 2025** in Figure 2.1 to create the chart shown in Figure 2.2.

You must include the title, axes values and axes labels as shown.

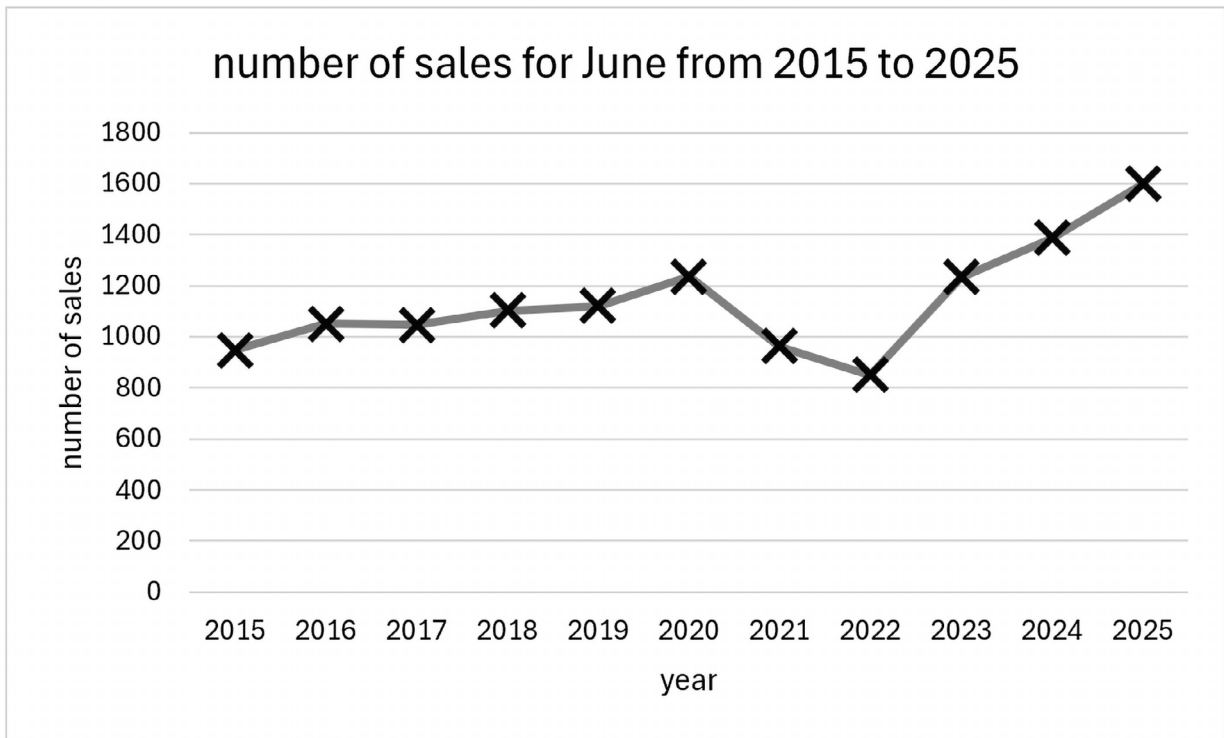


Figure 2.2

[5]

Save your file.

Document processing

Panda Palace wants you to create a newsletter for customers as shown in Figure 2.3.

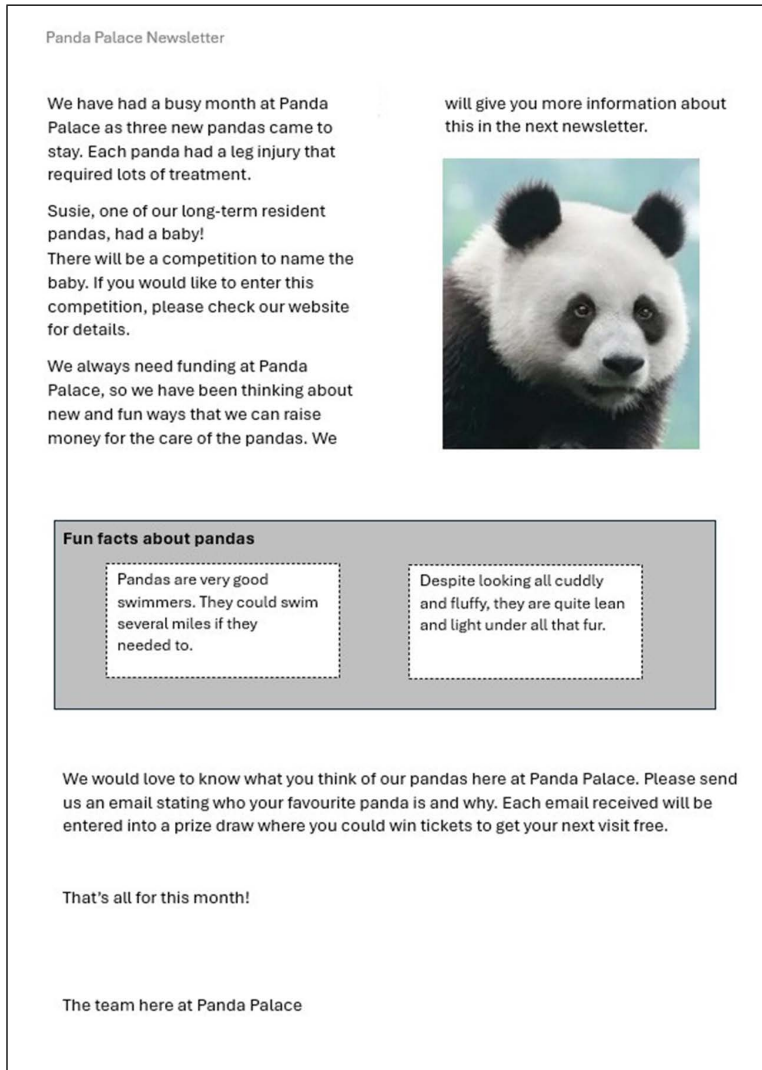


Figure 2.3

You have been given three files:

- **PANDA1.png**
- **NEWSLETTER.docx**
- **FUNFACT.docx**

Open the file **NEWSLETTER.docx**

Save your file regularly as:

TASK2DP_<Centre Number>_<Index Number>.docx

18 Insert the text 'Panda Palace Newsletter' as a header.

[1]

19 Format the first three paragraphs into two columns.

[1]

- 20 Insert a soft break (line break) after the text 'Susie, one of our long-term resident pandas, had a baby!'. [1]

- 21 Insert the image **PANDA1.png** in the second column after the text.

Set the wrapping style for the image to 'tight'.

Crop the image to be displayed as shown in Figure 2.4.

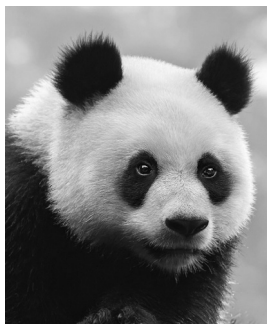


Figure 2.4

Resize the image to 6 cm wide. [4]

- 22 Open the file **FUNFACT.docx**

Copy the text from the file into the first text box in the 'Fun facts about pandas' section of the newsletter.

In this section, link the first text box to the second text box.

Format the borders of both text boxes to be dashed lines. [3]

Save your file.

[Total: 35]

Task 3 – Programming

You are required to create a maze game for young children. The player controls a cat that must first collect an apple and then reach the red exit without touching the black walls.

You have been given two files:

- **MAZE.svg**
- **APPLE.sprite3**

Open your programming software.

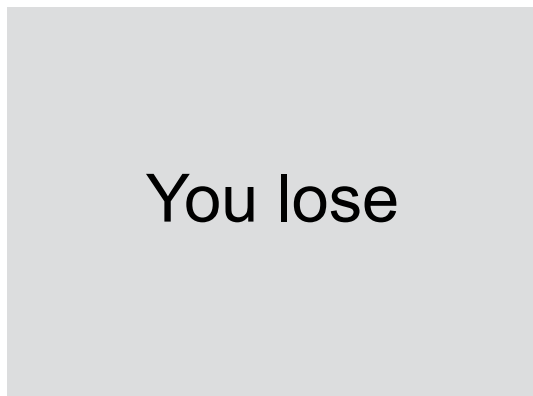
Save your file regularly as:

TASK3GAME_<Centre Number>_<Index Number>.sb3

23 Import the file **MAZE.svg** as backdrop 1.

Create two more backdrops with black text as shown in Figure 3.1. Backdrop 2 should have a light purple background and backdrop 3 should have a light blue background.

Backdrop 2



Backdrop 3

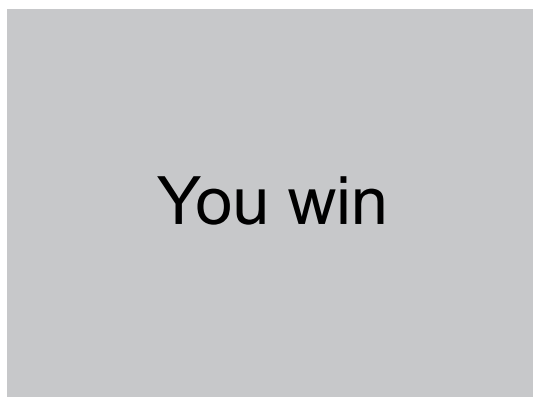


Figure 3.1

[3]

24 Import the apple sprite **APPLE.sprite3**

Place the cat sprite and **APPLE.sprite3** as shown in Figure 3.2.

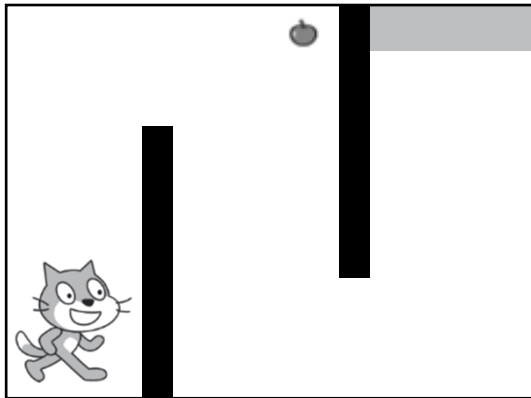


Figure 3.2

[1]

25 Create a variable and name it **attempt**.

[1]

26 When the game starts:

- backdrop 1 must be displayed
- initialise **attempt** to 0
- set all sprites to be visible
- set the size of the cat sprite to 50%
- the cat sprite should appear at the coordinates $x = -208$ and $y = -142$
- the cat should output the message 'Help me escape from the maze!' for 3 seconds.

[7]

27 Make the cat move:

- up by 10 steps when the up arrow is pressed
- down by 10 steps when the down arrow is pressed
- left by 10 steps when the left arrow is pressed
- right by 10 steps when the right arrow is pressed.

[2]

28 If the cat touches any of the black maze walls:

- increase **attempt** by 1
- return the cat to its starting position
- the cat should output the message 'Try again' for 2 seconds.

[4]

29 If the cat touches the apple:

- the cat should increase in size to 70%
- the apple must be hidden.

[3]

30 When **attempt** reaches 3:

- backdrop 2 must be displayed
- all sprites must be hidden
- the game must end.

[2]

31 If the cat reaches the red line at the end and the apple has been collected:

- backdrop 3 must be displayed
- the cat must be hidden.

[2]

Save your file.

[Total: 25]

Copyright acknowledgements

Task 1, Question 3	© Ref: 2040481823; BBC Natural History; <i>Giant panda cub rolls on its back</i> , China; www.gettyimages.co.uk
Task 1, Question 3	© Ref: 1402888688; Harming Potato / 500px; <i>Close-up of bear on tree</i> ; www.gettyimages.co.uk
Task 1, Question 3	© Ref: 498789760; Thousand Word Images by Dustin Abbott; <i>Panda in Repose</i> ; www.gettyimages.co.uk
Task 1, Question 3	© Ref: 157278376; VanWyckExpress; <i>Giant Panda resting</i> ; www.gettyimages.co.uk
Task 3	© Creative Commons Attribution-ShareAlike 2.0 license https://creativecommons.org/licenses/by-sa/2.0/

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