

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
LEVEL 1 FUNCTIONAL SKILLS MATHEMATICS

09865

TASK AND ANSWER BOOKLET PRACTICE PAPER 1

TIME: 1 HOUR 30 MINUTES

INSTRUCTIONS

Fill in all the boxes below. Make sure your personal details are entered correctly. Use **BLOCK LETTERS**.

Your surname or family name

Your first forename (if any)

Your second forename (if any)

Date of birth

Centre name

Centre number

Your OCR candidate number

At the beginning of this booklet you will find tear off Resource Documents. You will need to refer to these documents to complete the tasks.

You will also need:

- a pen with black ink
- a calculator
- a ruler

YOU HAVE 1 HOUR AND 30 MINUTES TO COMPLETE THE THREE TASKS

For each task, make sure that you:

- read the questions carefully before starting
- write your answers in this booklet
- clearly show how your working leads to your answers

2 marks are available in each task when you show you have checked your work.

When you have finished, hand this booklet and all the Resource Documents to the supervisor.

Ofqual Qualification Reference Number: 500/8910/9

FOR EXAMINER USE ONLY		
Question No	Mark	Total
TASK A		
1	/6	/20
2	/3	
3	/5	
4	/6	
TASK B		
1	/5	/20
2	/7	
3	/8	
TASK C		
1	/3	/20
2	/3	
3	/9	
4	/5	
Total	/60	

This document consists of 30 pages. Any blank pages are indicated.

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RESOURCE DOCUMENTS

The Resource Documents on pages 5, 7, 9 and 11 contain information to help you to answer the tasks in this booklet.

- The resource documents are perforated along the left hand side, so they can be removed from the task and answer booklet.
- Your supervisor will instruct you when to remove the resource documents, before you start the assessment.
- Please fold pages 5, 7, 9 and 11 along the perforated strip before removing from the task and answer booklet.

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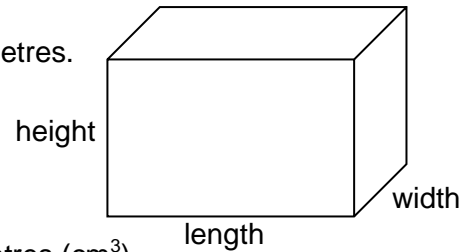
TASK A – CHRISTMAS MECHANICAL TOYS**RESOURCE DOCUMENT 1****Jo's record for last year's Christmas Toys**

	Type of Toy					
	Snow House	Big Wheel	Flying Santa	Snow Train	Snow Town	Magic Grotto
Price Jo pays	£40	£42	£50	£60	£75	£110
Price Jo sells	£60	£80	£90	£100	£120	£180
Number Jo buys	20	12	20	10	5	5
Number Jo sells	18	10	15	6	4	2

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TASK B – WASHING UP**RESOURCE DOCUMENT 1****A rule to work out the volume of water in a cuboid**

1. Find the length, width and height of the cuboid in centimetres.
2. Multiply the length by the width.
3. Multiply the answer by the height.
4. The answer is the volume of the cuboid in cubic centimetres (cm^3)

**Useful facts**

- Water costs 12p for 100 litres
- $1000 \text{ cm}^3 = 1 \text{ litre}$

There are

- 365 days in a year and
- 52 weeks in a year

Dishwasher

Special Offer
 Was ~~£369.99~~
 Now £250

- 13 place settings
- Energy rating: A+
- Water used: 11 litres per wash

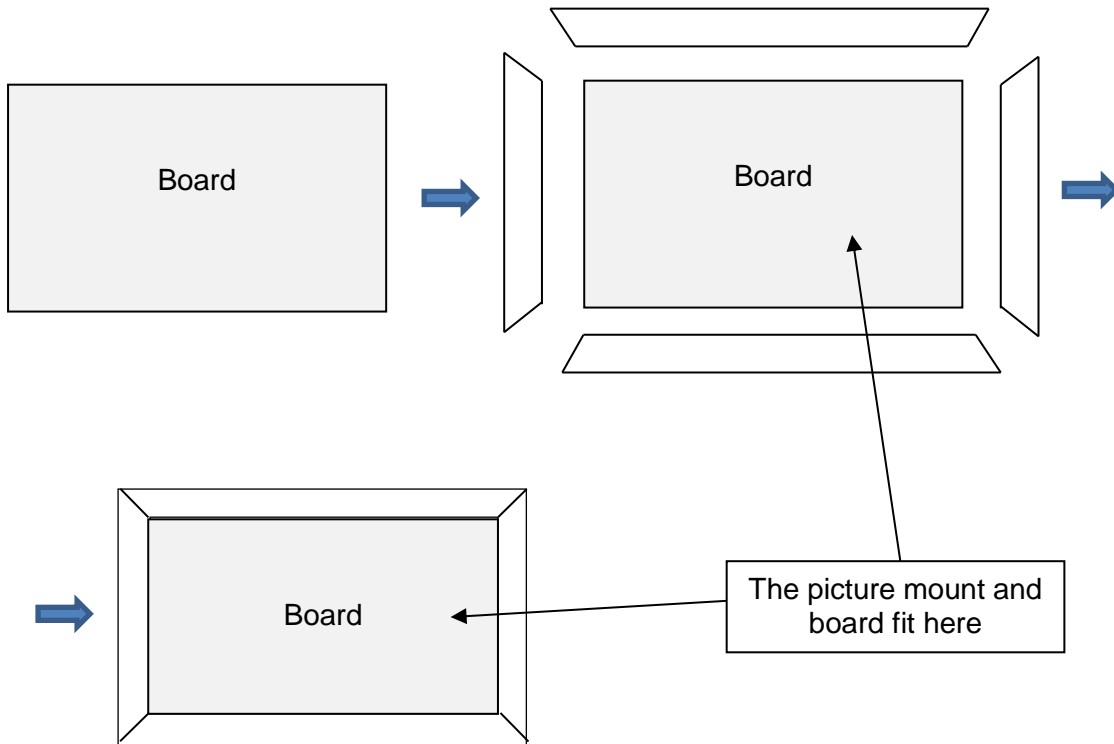
One-year manufacturer's warranty

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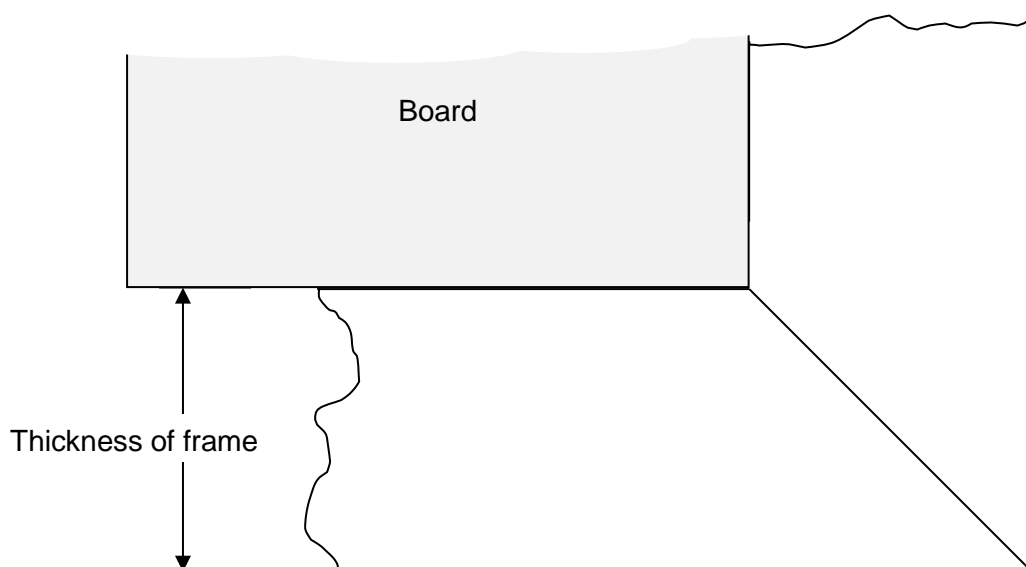
TASK C – PICTURE FRAMING

RESOURCE DOCUMENT 1

A picture frame is made using four pieces of wood called **moulding**. This moulding is fitted to the outside edges of a board. This is shown in the sketches below.



The end of each piece of frame is cut to make right angle corners like this. The board is shaded in the sketch.



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TASK C – PICTURE FRAMING

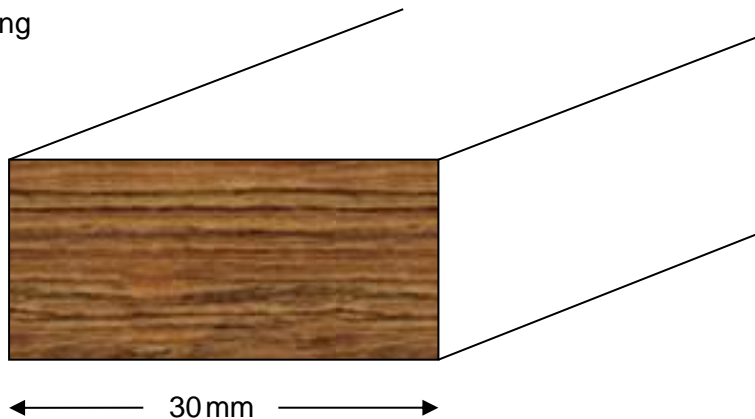
RESOURCE DOCUMENT 2

Board

2mm SBS 10" x 8" (250mm x 200mm) BBHB011	£0.22	<input type="text"/>	Add
2mm SBS A4 (297mm x 210mm) BBHB010	£0.26	<input type="text"/>	Add
2mm SBS 12" x 10" (300mm x 240mm) BBHB009	£0.36	<input type="text"/>	Add
2mm SBS 14" x 11" (350mm x 280mm) BBHB008	£0.40	<input type="text"/>	Add
2mm SBS 16" x 12" (400mm x 300mm) BBHB006	£0.44	<input type="text"/>	Add
2mm SBS 18" x 14" (480mm x 350mm) BBHB005	£0.53	<input type="text"/>	Add
2mm SBS 20" x 16" (500mm x 400mm) BBHB004	£0.66	<input type="text"/>	Add
2mm SBS 24" x 20" (600mm x 500mm) BBHB003	£0.88	<input type="text"/>	Add

(<http://www.prioryframingsupplies.co.uk/>)

Moulding



The moulding is sold in pieces that are 1.5 metres long.
Moulding cost £2.60 per metre.

1 inch = 2.5 cm

10 mm = 1 cm

100 cm = 1 m

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TASK AND ANSWER PAGES

Do not turn over this page until you are told to do so by your supervisor.

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TASK A – CHRISTMAS TOYS**You will need Task A Resource Document 1**

Jo is the manager of a garden centre.

She is thinking about how many Christmas Toys to order for next Christmas.

She looks at her figures from last Christmas.

Jo buys each toy for one price and sells it at a higher price.

Q1 (a) What price did Jo pay for a Big Wheel?

_____ **(1 mark)**

(b) For what price did Jo sell a Big Wheel?

_____ **(1 mark)**

The difference between these two prices is the money she makes.

(c) How much money did Jo pay to buy 12 Big Wheels?

_____ **(2 marks)**

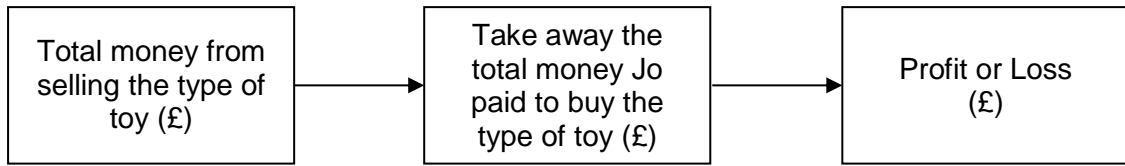
(d) How much money did Jo get from selling 10 Big Wheels?

_____ **(2 marks)**

Examiner
use only
(Q1)

Jo donated the toys that she did not sell to charity.

Jo works out her profit or loss for each type of toy using this word formula.



Q2 Did Jo make a profit or loss from selling Big Wheels last year?
How much was this?
Support your answer with working.

(3 marks)

Examiner
use only
(Q2)

Q3 (a) Complete this table.

	Type of Toy					
	Snow House	Big Wheel	Flying Santa	Snow Train	Snow Town	Magic Grotto
Price Jo pays	£40	£42	£50	£60	£75	£110
Price Jo sells	£60	£80	£90	£100	£120	£180
Number Jo buys	20	12	20	10	5	5
Number Jo sells	18	10	15	6	4	2
Total money Jo pays to buy the type of toy			£1000	£600	£375	£550
Total money Jo gets from selling the type of toy			£1350	£600	£480	£360
Profit or Loss			£350	£0		-£190

(4 marks)

(b) Explain what the entry for Profit or Loss in the **Magic Grotto** column means.

(1 mark)

Examiner
use only
(Q1)

These are the prices Jo paid last year and the prices she will pay this year for toys.

	Type of Toy					
	Snow House	Big Wheel	Flying Santa	Snow Train	Snow Town	Magic Grotto
Last year's prices	£40	£42	£50	£60	£75	£110
This year's prices	£50	£50	£50	£90	£70	£160

Jo wants to order some toys for next Christmas.
She does not think she will order all the types.

Q4 Use this information, and last year's sales figures, and write some recommendations for Jo.

You must explain your recommendations.

(4 marks)

Examiner
use only
(Q4)

Checking (2 marks)

Examiner
use only
(Checking)

Total (Q4 + checking) marks

Examiner
use only
(Total)

END OF TASK A

TASK B – WASHING UP**You will need Task B Resource Document 1**

Nadia does not have a dishwasher.
She washes up in this bowl.

The bowl can be thought of as a cuboid.

The length and width of the bowl are both 30 cm.



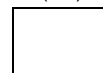
- Q1 (a)** When Nadia washes up she always puts water into the bowl until it is $\frac{3}{4}$ full.
What is the depth of water in the bowl?

(2 marks)

- (b)** Use a calculation to Show that Nadia uses just under 11 litres of water each time she washes up.

(3 marks)

Examiner
use only
(Q1)

**[Turn over**

Nadia makes this record of how many times she washes up in 10 days.

Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed
3	4	3	4	3	5	5	4	4	5

- Q2 (a)** Nadia uses 11 litres of water each time she washes up.
Calculate the number of litres of water she uses for washing up in a year.

Show your working.

(5 marks)

- (b)** How much does Nadia pay in a year for the water she uses to wash up?

(2 marks)

Examiner
use only
(Q2)

Nadia buys the dishwasher shown in **Task B Resource Document 1**.
Most dishwashers do not last for more than 10 years.

In the next year she uses only the dishwasher for washing up.
She uses it four times each week.
She saves money because she uses less water than washing up by hand.

Q3 Is it likely that the money she saves will cover the price of the dishwasher?
Explain your decisions and show the calculations you use.

(6 marks)

Examiner
use only
(Q3)

Checking (2 marks)

Examiner
use only
(Checking)

Total (Q3 + checking) marks

Examiner
use only
(Total
Q3+ch)

END OF TASK B

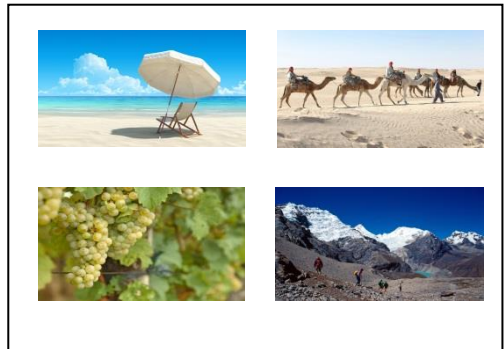
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TASK C – PICTURE FRAMING

You will need Task C Resource Documents 1 and 2

Barry has four pictures.
Each picture is 7 inches wide and 5 inches high.
He wants to put them all in one mount like this.

Not to scale



The mount holds the pictures that will go in a frame.
There is 1 inch between each picture and a 2 inch wide border around the four pictures.

Q1 (a) Use figures to explain why the total width of the mount is 19 inches.

_____ **(1 mark)**

(b) What is the total height of the mount, in inches?

(2 marks)

Examiner
use only
(Q1)

Barry will make a frame to hold the mount and pictures.
He needs moulding and a board that he can cut to the same size as the mount.

The boards he can buy are shown in Task C Resource Document 2.
He wants to cut off as little board as possible.

Q2 (a) Which board should he buy?

_____ **(1 mark)**

(b) How can he cut the board to be the same size as the mount?
Use figures in your answer.

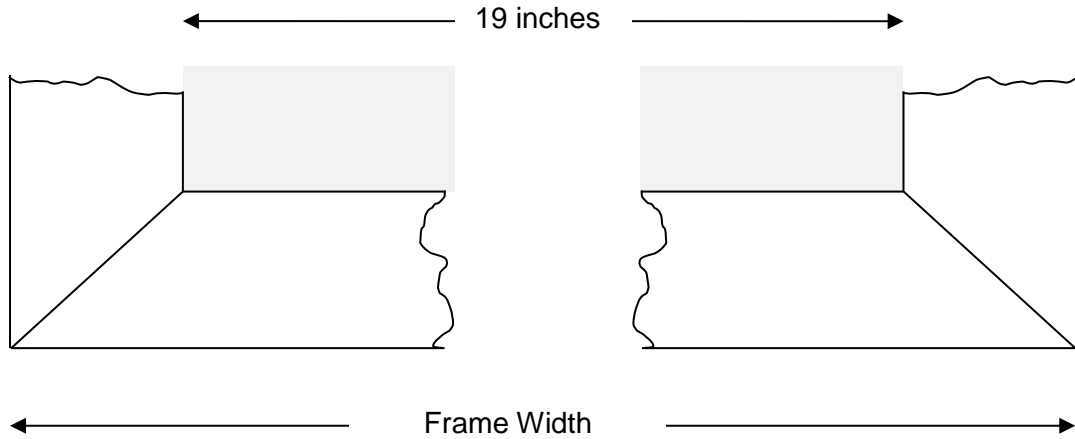
(2 marks)

Examiner
use only
(Q2)

This sketch shows the bottom of the frame and the board.

The board is 19 inches wide.

Q3 (a) Using the diagram and calculations, explain why the Frame Width will be 53.5 cm.



(5 marks)

(b) Can Barry make a frame for the pictures using one piece of moulding?
 Show how you get your answer and explain your decisions.
 You will need to look back to **Task C Q1**.

[Turn over

(4 marks)

Examiner
use only
(Q3)

Q4 Barry pays £10.20 for the mount.
How much will Barry spend, in total, to make his picture frame?

(3 marks)

Examiner
use only
(Q4)

Checking (2 marks)

Examiner
use only
(Checking)

Total (Q4 + checking) marks

Examiner
use only
(Total
Q4+ch)

END OF TASK C

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