

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

LEVEL 2 FUNCTIONAL SKILLS MATHEMATICS

09866

TASK AND ANSWER BOOKLET

This assessment may only be taken within these dates:

14 – 18 JANUARY 2013

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

FOR EXAMINER USE ONLY		
Task No	Mark	Total
1a i) ii)	/5	/20
1b	/4	
1c i) ii)	/9	
Checking	/2	
2a i) ii) iii)	/5	/20
2b	/6	
2c i) ii)	/7	
Checking	/2	
3a	/3	/20
3b	/3	
3c	/2	
3d	/8	
3e	/2	
Checking	/2	/20
Total	/60	

YOU NEED

- This Task and Answer Booklet
- The Resource Booklet for this test
- A pen with black ink
- A calculator
- A ruler

YOU HAVE 1 HOUR AND 30 MINUTES TO COMPLETE THE 3 TASKS

- Read the tasks inside this booklet carefully before starting the tasks
- Write your answers in this booklet
- For each task, clearly show how your working leads to your answer
- When you have finished, hand this booklet to the supervisor

Task 1 – Trains and Planes

**You will need the information on pages 2 and 3 of the Resource Booklet.
You must show clearly how your working leads to each answer.
2 marks are available in each task when you show you have checked your work.**

Mel lives in Derby.
She wants to visit a friend in Paris.

She looks at budget airlines on the internet.
Mel chooses three possible airports to fly from.
These are Liverpool, Manchester and London Heathrow.



She jots down the prices of return fares on the dates she wants.

(a) (i) What is the cheapest flight to Paris that Mel has found?

(1 mark)

(ii) **On average** which airport is the cheapest to fly from?
Show how you have worked out your answer.

(4 marks)

Examiner
use only
(Part a)

Mel has to travel from Derby to the airport she chooses.

- (b) Which airport would you recommend she uses?
Give the reasons for your choice.

(4 marks) Examiner
use only
(Part b)

Mel will fly in an Airbus A319. She is worried about her carbon footprint.

- (c) (i) How much CO₂ per kilometre does an Airbus A319 produce **per person**?
Write down any assumptions you make.

(5 marks)

Task 2 – Rainbow Fish

**You will need the information on page 4 of the Resource Booklet.
You must show clearly how your working leads to each answer.
2 marks are available in each task when you show you have checked your work.**

Callum wants to buy a new aquarium to breed tropical rainbow fish.
He sees a For Sale card in the local supermarket.
The card is shown in the Resource Booklet on page 4.

Callum's guide to keeping fish states: *"before adding fish - fill your aquarium with water until the level is 2 cm below the top of the sides"*

- (a) (i)** Calculate the volume of water in this aquarium when it is ready for the fish to be added.

(2 marks)

- (ii)** Calculate the weight of the water in the aquarium.

(1 mark)

Callum's friend Daljit says ...

A full aquarium that size will have at least half a ton of water in it.

- (iii)** Is Daljit correct?

Support your answer with calculations.

(2 marks)

Examiner
use only
(Part a)

[Turn over

Task 3 – Baked Potatoes

You will need the information on page 5 of the Resource Booklet.
 You must show clearly how your working leads to each answer.
 2 marks are available in each task when you show you have checked your work.

Amy saw this in a cafe.

Baked potato and Filling £3!



£3! They must be making a fortune!



Amy's aunt Emma runs a sandwich shop.
 She agrees to let Amy have a space in her shop to sell baked potatoes.

Before Amy starts she works out her costs and the possible number of customers.

Emma's shop is open 5 days a week serving, on average, 800 customers per day.

- (a) Amy asks some of the shop's customers if they would buy baked potatoes.
 Of the 40 people she asked 11 said they would.

Estimate the number of customers per day Amy might expect to buy a baked potato.
 Explain how you arrived at your answer.

This is the figure Amy will use in her plans.

(3 marks) Examiner
 use only
 (Part a)

- (b) Baking potatoes are sold in 56 kg sacks that cost about £45 each.
Each potato weighs about 250 g.

Make a rough estimate of how much it will cost Amy to buy a week's supply of potatoes.

Show your working clearly and write down any assumptions you make.

(3 marks) Examiner
use only
(Part b)



- (c) Amy decides to buy this baked potato oven.
She spreads this cost over a year.

Calculate roughly how much this will work out per week.

Only £535

(2 marks) Examiner
use only
(Part c)

(e) Amy plans to sell the baked potatoes with fillings for £2.50 each.

How much profit or loss will she expect to make in a week?

(2 marks)

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(Part e)

Checking (2 marks)

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