

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
LEVEL 2 FUNCTIONAL SKILLS MATHEMATICS

09866

TASK AND ANSWER BOOKLET

**This assessment may be taken within these dates:
 4 – 8 APRIL 2011**

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

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**

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**Your first
 forename (if any)**

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**Your second
 forename (if any)**

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Date of birth

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Centre name

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Centre number

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**Your OCR
 candidate number**

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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 – Making lunch

**You must clearly show how your working leads to each answer.
2 marks are available in each task when you show you have checked your work.**

Omar works in an office from Monday to Friday each week.

He goes out to a sandwich shop each day to buy his lunch.

Each day Omar buys the Meal Deal.

(a) (i) How much does he spend at the sandwich shop each week?

You will need pages 2 and 3 of the Resource Booklet.

[2 marks]

[Turn over

- (ii) Omar has 4 weeks holiday from work each year.
How much does he spend at the sandwich shop in a year?

[2 marks]

Omar is worried that he is eating too much fat.
His favourite sandwich is cheese and tomato.

Ken says 'Your Meal Deal gives you over a quarter of the daily guideline amount of fat'.

(b) Is Ken correct?

Use calculations to justify your answer.

[3 marks]

Omar thinks his lunch might have less fat if he made it himself.

He finds some information from a supermarket website.

He uses low fat cheese to make a cheese and tomato sandwich.

He also takes a bag of crisps and a bottle of water.

Ken says 'I'm sure this would only have half as much fat as the Meal Deal'.

(c) Is Ken correct?

Explain how you get your answer.

You will need pages 2, 3 and 4 of the Resource Booklet

[4 marks]

**(d) Omar thinks that if he makes his own lunch for a whole year, he will save enough money to buy a new laptop.
Is he correct?
Explain how you decide and any assumptions you make.**

8

[7 marks]

Checking [2 marks]

Task 2 – Using gas

**You must clearly show how your working leads to each answer.
2 marks are available in each task when you show you have checked your work.**

Alex uses gas in his home for heating, cooking and hot water.

He draws a graph showing the amount of gas he used each week in 2009.

- (a) (i) When Alex went on holiday, no gas was used in his home.
When was this?**

You will need page 5 of the Resource Booklet.

[1 mark]

**(ii) Alex did not use his heating in the summer.
In which month do you think he turned it back
on again?**

[1 mark]

**(iii) During which month was the outside
temperature probably the coldest?
Give a reason for your answer.**

[2 marks]

Alex is sent a gas bill every three months (one quarter of a year).

Gas suppliers charge by the number of kilowatt hours (kWh) used each quarter.

(b) (i) Show that Alex will pay about £42, including VAT, for the first 1143 units of gas he uses in each quarter.

You will need pages 6 and 7 of the Resource Booklet.

[2 marks]

(ii) Find the total amount, including VAT, that Alex pays for gas for all four quarters of 2009.

[4 marks]

(c) Alex can pay a fixed amount each month for the whole year instead of paying each quarter. His gas supplier says he should pay £45 each month for the next year. Alex thinks that this is not a good deal. Is he correct? Explain your answer.

You will need pages 6 and 7 of the Resource Booklet.

[2 marks]

Alex thinks that he might be able to save money by changing to a different gas supplier. He finds details on the internet of a Saver tariff and wants online billing.

[Turn over

(d) Would you recommend that Alex changes to this tariff?

Show clearly how you decide.

[6 marks]

Checking [2 marks]

Task 3 – Trampoline

**You must clearly show how your working leads to each answer.
2 marks are available in each task when you show you have checked your work.**

You will need pages 8, 9 and 10 of the Resource Booklet.

**Carla is a childminder.
She wants to put a trampoline in her garden.**

(a) How much does it cost Carla for the Superior trampoline and an anchor kit?

[2 marks]

**Carla will make a circular safety area under and around the trampoline.
She must follow the safety surface guidelines.**

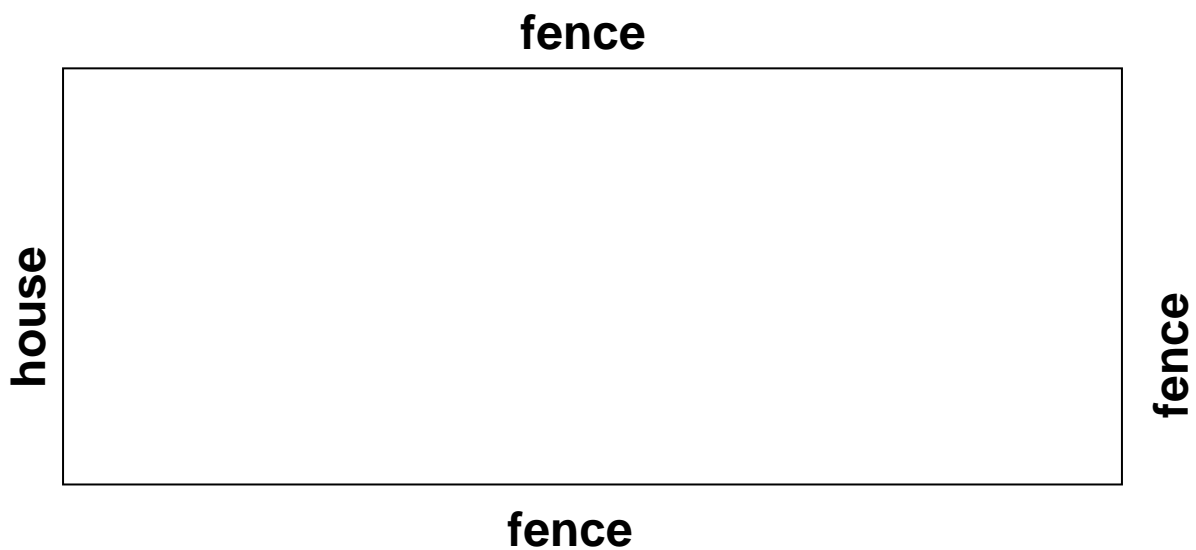
(b) What is the smallest diameter the safety area can be?

[2 marks]

This is a scale drawing of Carla's garden.
The safety area will be more than 1 metre away from the house and any fence.

You will need pages 8, 9, 10 and 11 of the Resource Booklet.

(c) Shade the region where no part of the safety area can be placed.

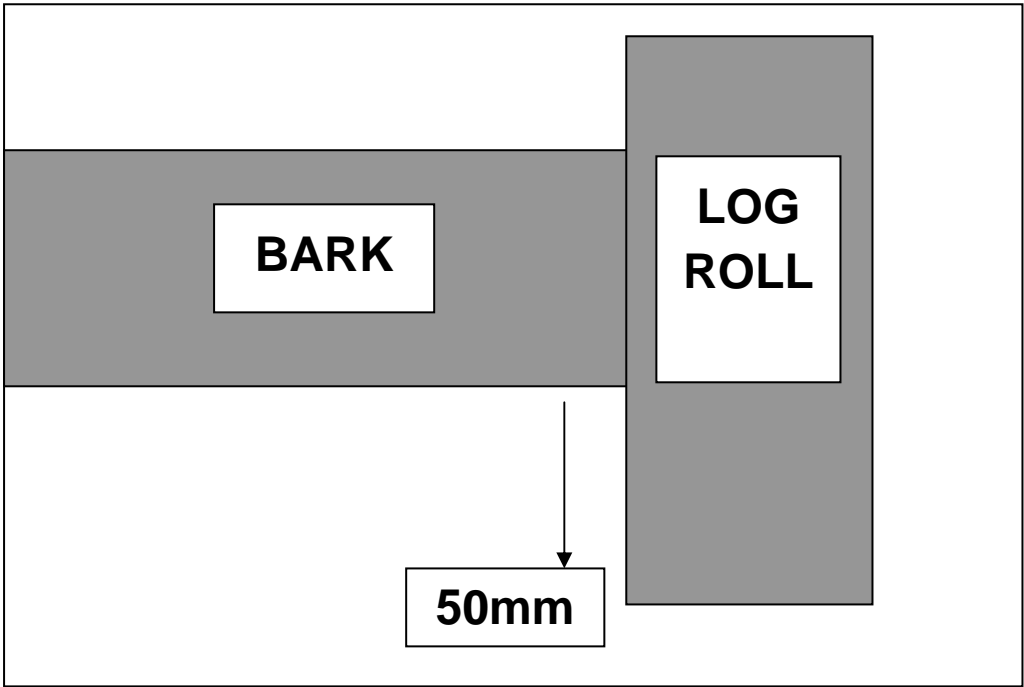


Scale: 1 cm to 2 m

[2 marks]

Carla will put a low fence around the outside of the circular safety area.
She will use log roll fencing for this.
She will use PLAY BARK for the safety area surface.
The height of the log roll fence must be greater than the safe depth of bark.
The roll must also be buried at least 50 mm into the ground to keep it in place.

[Turn over



(d) (i) What height of log roll should Carla buy?

[2 marks]

(ii) How much will it cost for Carla to buy the log roll fencing she needs?

[4 marks]

**(iii) Work out the number of bags of PLAY BARK that Carla needs to buy.
How much will this cost?
Note down any assumptions you make.**

[6 marks]

Checking [2 marks]

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[Turn over