

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
LEVEL 1 FUNCTIONAL SKILLS MATHEMATICS

09865

TASK AND ANSWER BOOKLET PRACTICE PAPER 3

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		
	/	/20
	/	
	/	
	/	
	/	
TASK B		
	/	/20
	/	
	/	
	/	
	/	
TASK C		
	/	/20
	/	
	/	
	/	
	/	
Total	/60	

This document consists of 28 pages. Any blank pages are indicated.

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RESOURCE DOCUMENTS

The Resource Documents on pages 5, 7, 9, 11 and 13 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, 11 and 13 along the perforated strip before removing from the task and answer booklet.

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TASK A – GET ME TO THE CHURCH ON TIME**RESOURCE DOCUMENT 1****Route 1**

	Distance (miles)	Expected average speed (miles per hour)
M25 to M1	19	50
M1 to Junction 24	105	60

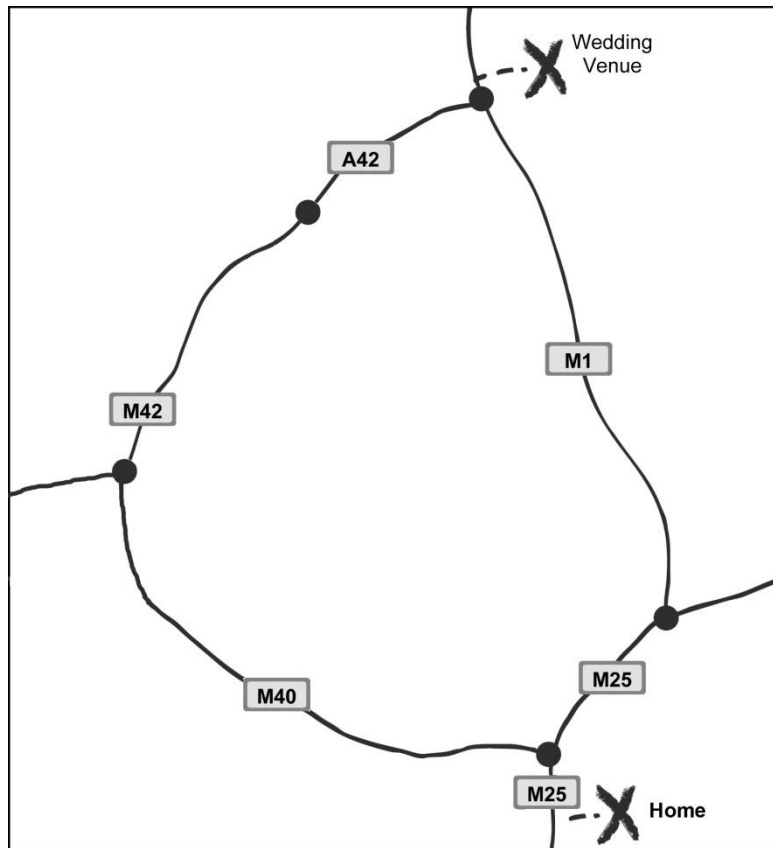
Route 2

	Distance (miles)	Expected average speed (miles per hour)
M25 to M40	4	50
M40 to M42	85	50
M42 to A42	33	45
A42 to M1	15	40
M1 to Junction 24	3.5	60

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TASK A – GET ME TO THE CHURCH ON TIME

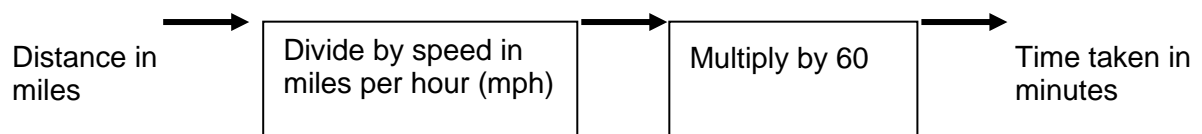
Map showing two possible routes from Peter's home to the wedding.



Peter knows that it takes:

- 10 minutes to travel the 2 miles from his house to the M25
- 15 minutes to travel the 5 miles from the M1 Junction 24, to the wedding venue

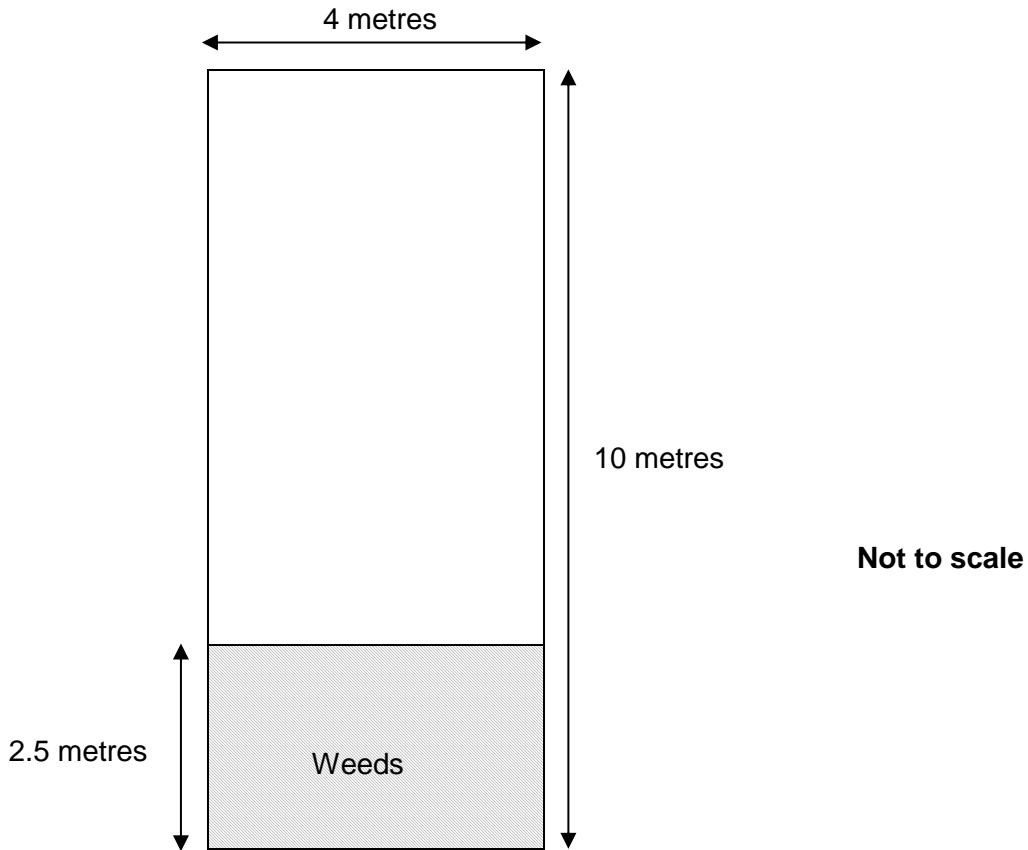
This function machine is used to work out how many minutes a car takes to travel a distance when it travels at a steady speed.



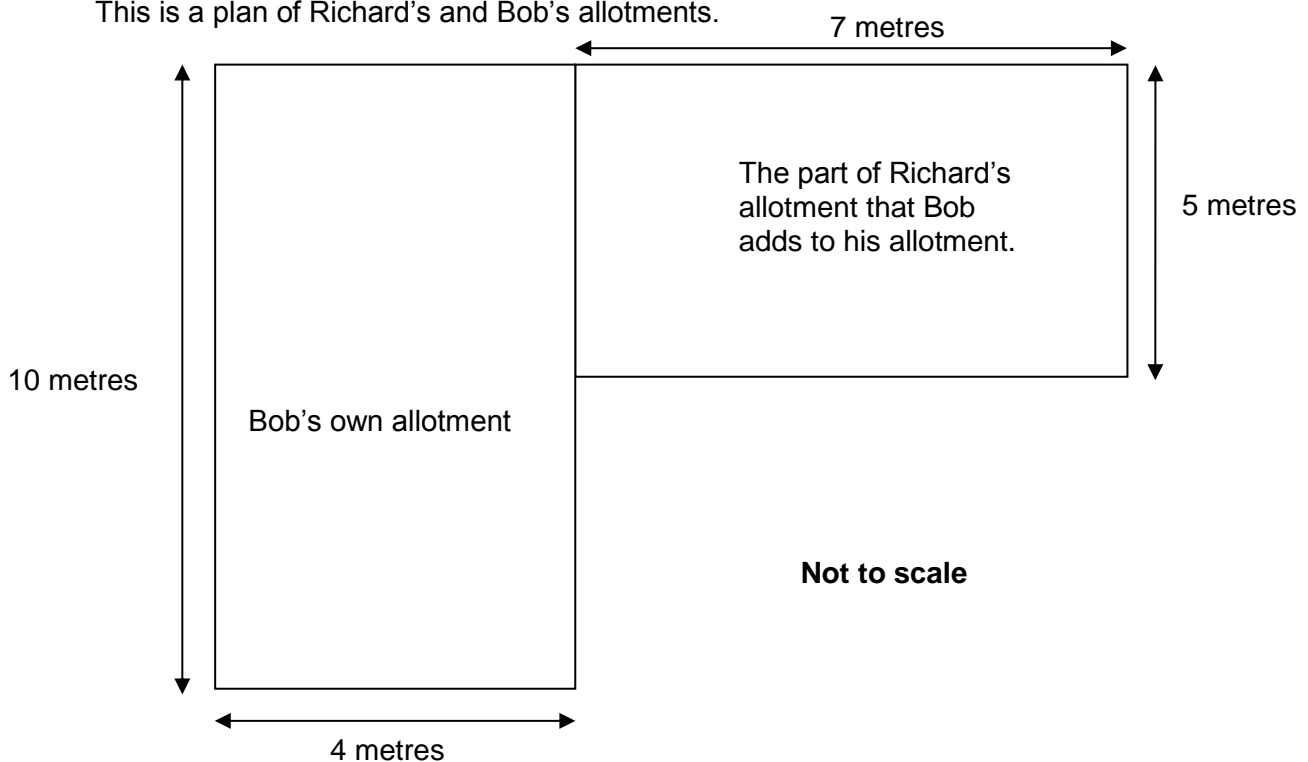
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TASK B – GREEN FINGERS**RESOURCE DOCUMENT 1**

This is a plan of Bob's allotment.
The shaded area is covered with weeds.



This is a plan of Richard's and Bob's allotments.



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TASK B – GREEN FINGERS

DIY costs for fencing

Lander Fencing

1 metre of fencing
(Length and price include posts)
Just £4.95!

**BORDERLINE
FENCES**

Pack of 10 metres of fencing
(Length and price include posts)
£48.50

SMART FENCE

50 METRE PACK OF FENCING
(LENGTH AND PRICE INCLUDE POSTS)
£260

Now 20p in every £1
off marked price at
Smart Fence

All three companies charge these prices for garden gates:

1 metre wide (including posts)	£35
2 metres wide (including posts)	£45



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TASK C – KEEP ON RUNNING**RESOURCE DOCUMENT 1**

These are the times, in hours and minutes, that four runners took to run some half marathons. They did not all run in all of the races.

	1 st Half Marathon Time	2 nd Half Marathon Time	3 rd Half Marathon Time	4 th Half Marathon Time
Jane		1 h 50 min	1 h 49 min	1 h 45 min
Ravinda	1 h 58 min	1 h 58 min	1 h 57 min	1 h 51 min
Sula	2 h 7 min	1 h 52 min	1 h 46 min	
Emma	1 h 45 min			1 h 38 min

These are the times, in minutes, which the four runners took to run a 10-km race.

	10-km race time
Jane	47 min
Ravinda	56 min
Sula	51 min
Emma	45 min

A half marathon race is 13.1 miles long.
A full marathon race is 26.2 miles long.

Here are two different methods used to predict the time to run a full marathon.

Method 1

Double your fastest half marathon time.

Add 20 seconds for each mile of the marathon.

Method 2

Multiply your time for a 10-km race by 5.

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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 – GET ME TO THE CHURCH ON TIME**You will need Task A Resource Document 1**

Peter who lives in London has been invited to a wedding in Nottingham.
He has a choice of which routes to take.

- Q1 (a) (i)** If Peter uses Route 1 what average speed can he expect to travel on the M1?

(1 mark)

- (ii)** If Peter uses Route 2 how many miles will he travel along the M42?

(1 mark)

- (iii)** How many miles will Peter drive, in total, from his home to the wedding if he uses Route 2?

(3 marks)

(b) How long would the journey on the A42 take Peter if he uses Route 2?

(3 marks)

Peter is going with Aaliyah to the wedding. They discuss the possible routes to take.



(c) Give **two** reasons to support Aaliyah's opinion.

(2 marks)

Peter decides to use Route 1. The wedding is at 1 o'clock.

Peter knows that it takes:

- 10 minutes to travel the 2 miles from his house to the M25
- 15 minutes to travel the 5 miles from the M1 Junction 24, to the wedding venue

(d) Peter leaves home at 10.20am. Taking travel factors into account, calculate and explain whether this is a sensible leaving time. You must support your answer with evidence.

(8 marks)

Examiner
use only
(Q1)

Question 1 plus 2 checking marks

Examiner
use only

Total marks

Examiner
use only
(Total)

END OF TASK A

TASK B – GREEN FINGERS

You will need Task B Resource Document 1



Bob rents an allotment.

Q2 (a) (i) What is the total area of Bob's allotment?

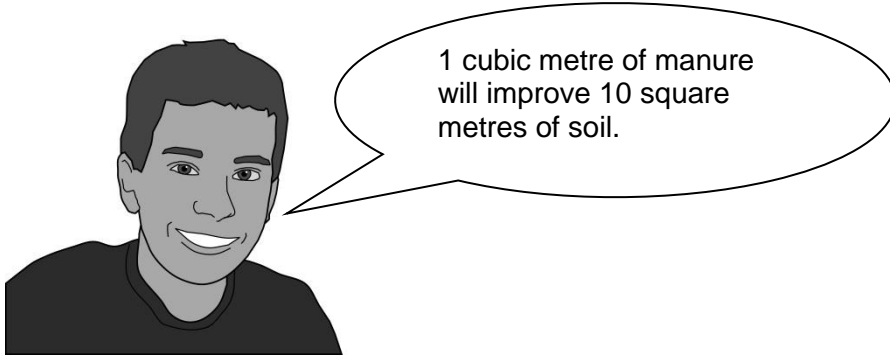
(2 marks)

Part of the allotment is covered with weeds, the rest is ready for planting.

(ii) What area, in m^2 , is ready for planting?

(2 marks)

Bob clears the weeds. He will improve all the soil on his allotment by using manure. Bob orders manure from a local farmer.

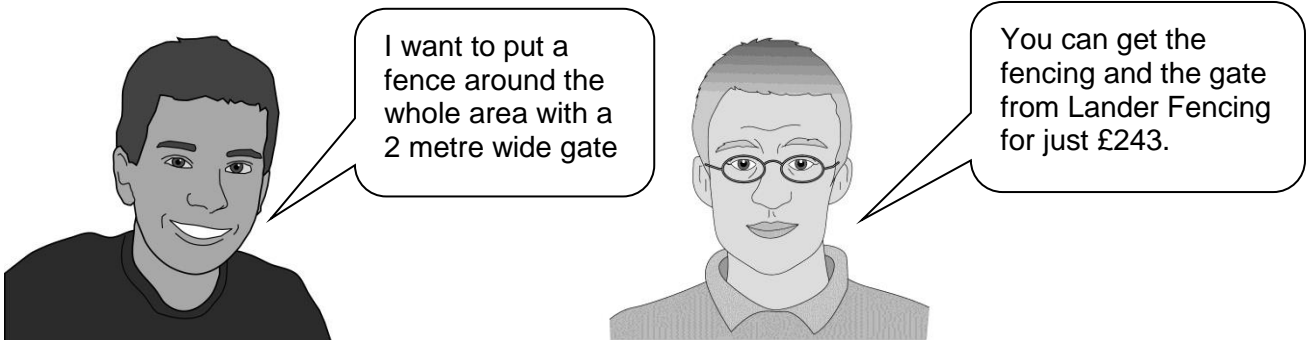


- (b) (i) How many cubic metres of manure does Bob need to improve all his soil?

(2 marks)

Richard's allotment is next to Bob's allotment.
He offers Bob the part of his allotment shown on the Resource Sheet.

Bob says



(b) (ii) Show that this cost is correct.

(6 marks)

- (b) (iii) Calculate the cheapest price Bob can pay for his fencing and gate.
Show how you get your answer.

(6 marks)

Examiner
use only
(Q2)

Question 2 plus 2 checking marks

Examiner
use only

Total marks

Examiner
use only
(Total)

END OF TASK B

TASK C – KEEP ON RUNNING**You will need Task C Resource Document 1**

Four friends, Jane, Ravinda, Sula and Emma run half marathons and 10-km races.



Q3 (a) (i) Which of the four friends ran the slowest half marathon?

(1 mark)

(ii) What was her slowest time?

(1 mark)



The average time for my half marathons is 1 hour 41.5 minutes and I have the lowest range of times.

(b) (i) Is Emma right?

(4 marks)

(ii) The four friends race against each other in another half marathon.

Who is most likely to win?
Explain your reasoning.

(4 marks)

They would all like to enter a full marathon.

Only runners who are likely to finish a full marathon in less than 4 hours can enter.

- (c) Which of the friends have the best chance of entering the full marathon?
Use both methods for predicting full marathon times to help you decide.
Show your working.

(8 marks)

Examiner
use only
(Q3)

Question 3 plus 2 checking marks

Examiner
use only

Total marks

Examiner
use only
(Total)

END OF TASK C

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