

Write your name here

Surname

Other names

**Pearson Edexcel
Functional Skills**

Centre Number

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Candidate Number

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Mathematics

Level 1



5 – 9 January 2015

Time: 1 hour 30 minutes

Paper Reference

FSM01/01

You must have:

Pen, calculator, HB pencil, eraser, ruler graduated in cm and mm, protractor, compasses.

Total Marks

My signature confirms that I will not discuss the content of the test with anyone until the end of the 5 day test window.

Signature: _____

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Sign the declaration.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- **Calculators may be used.**

Information

- The total mark for this paper is 48.
- The marks for each question are shown in brackets – *use this as a guide as to how much time to spend on each question.*
- **Where you see this sign you must show clearly how you get your answers because marks will be awarded for your working out.**
- **Check your working and your answers at each stage.**



Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.

Turn over ►

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P 4 6 7 9 5 A 0 1 2 0

PEARSON

SECTION A: Rabbits

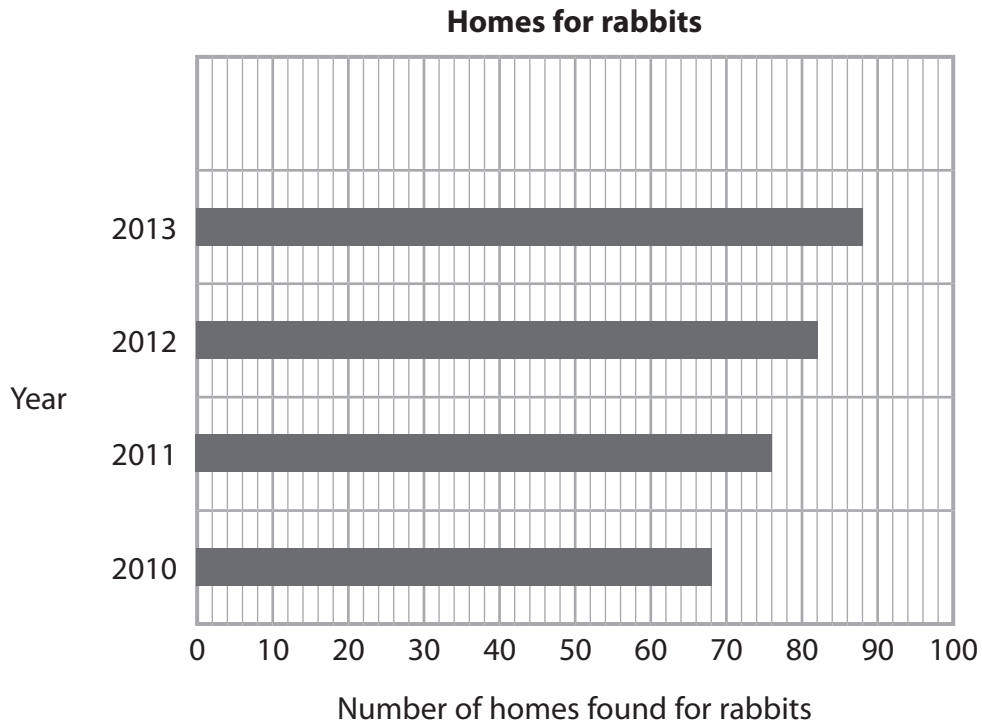
Answer all questions in this section.

Write your answers in the spaces provided.

1 Hayley works at a rabbit adoption centre.

She writes a leaflet about the centre.

Hayley draws this graph about finding homes for the rabbits.



In 2014 the centre found 92 homes for rabbits.

(a) Add this information to the graph.

(1)

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Hayley wants to know how many homes were found for rabbits from 2010 to 2014.

(b) Use the graph to work out the total number of homes found in these 5 years.

(3)

Use the box below to show clearly how you get your answer.



Blank area for showing the calculation.

Hayley wants to write a comment about the graph to use in the leaflet.

(c) Write a comment about how the number of homes found for rabbits has changed.

(1)

Write your comment in the box below.

Blank area for writing a comment.



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Hayley wants a sheet to collect information about the rabbits that need new homes.

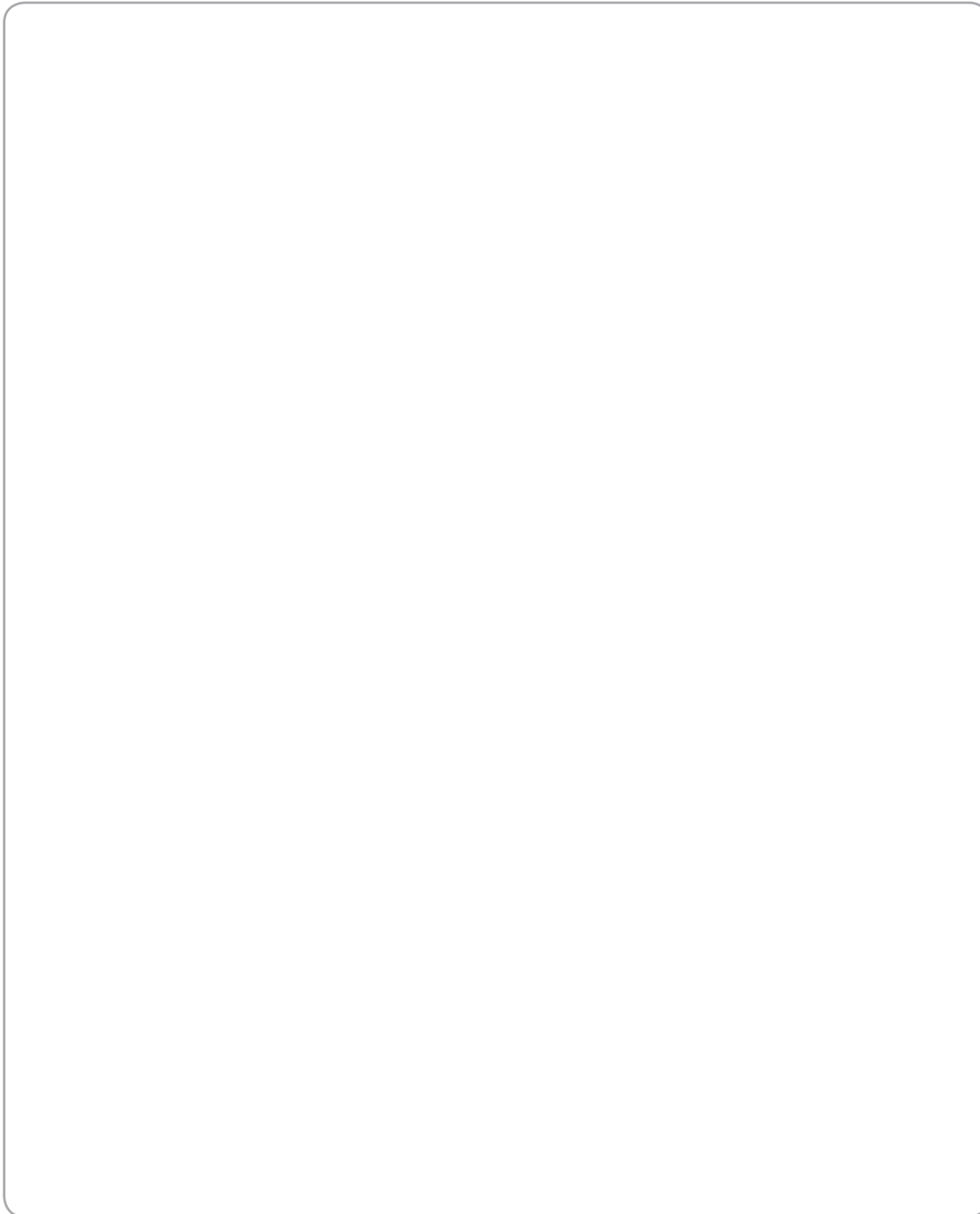
She wants to record if each rabbit is

- male or female
- a large breed, a medium breed or a small breed.

(d) Design a data collection sheet for Hayley.

(3)

Use the box below for your data collection sheet.



(Total for Question 1 is 8 marks)

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2 Bobby adopts a rabbit.
The rabbit needs to live in a hutch and have a run to play in.
Bobby is going to put the hutch and the run on his lawn.

Bobby finds this information.

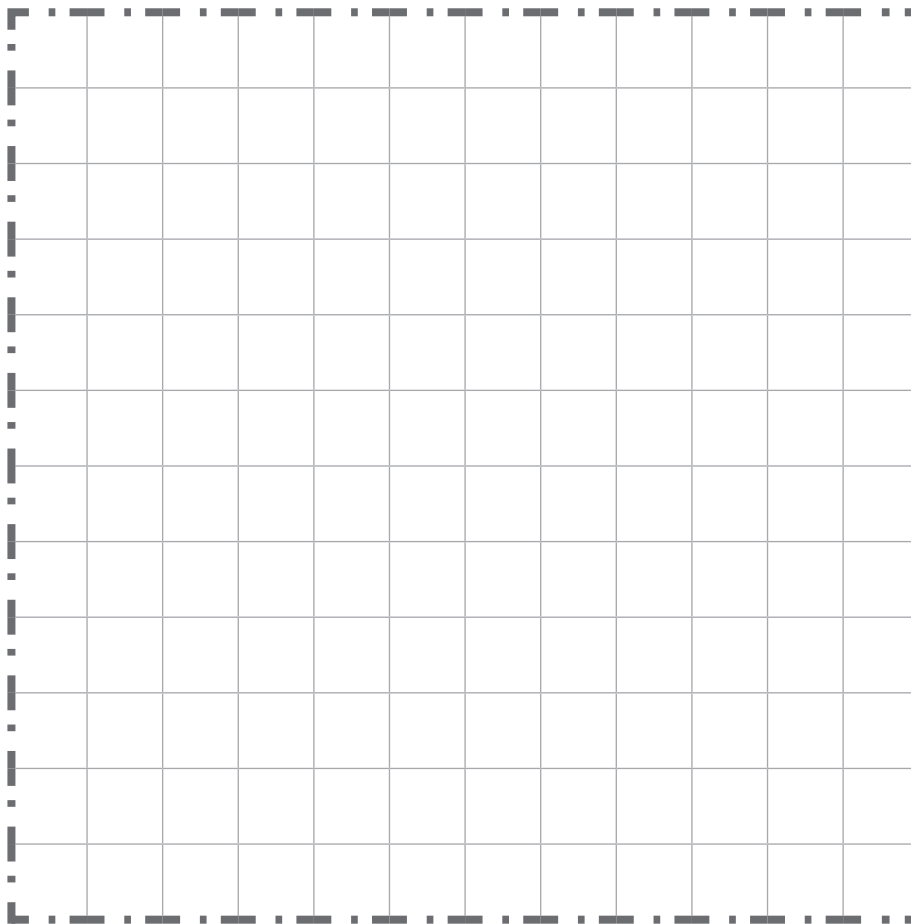
- The hutch needs a rectangular space 6 ft by 2 ft.
- The run needs a rectangular space 8 ft by 4 ft.
- The space for the run must be attached to the space for the hutch.
- The hutch and the run must be at least 2 ft away from any fence.

He wants to put the hutch against the wall of the house.

Bobby draws a plan of his lawn on a grid.

(a) Draw the hutch and the run on the grid.

(4)



Key: 1 square on the grid is 1 ft by 1 ft on the lawn

— Wall of house

- - - Fence



Bobby buys 3 kg of rabbit food.

Here is the label on the rabbit food.

Feed your rabbit 25 g for each kg of its body weight each day.

The rabbit has a body weight of 2 kg.

Bobby thinks the 3 kg of food will last more than 35 days.

(b) Is Bobby correct?
Show why you think this.

(4)

Use the box below to show clearly how you get your answer.



A large empty rectangular box for writing the answer.

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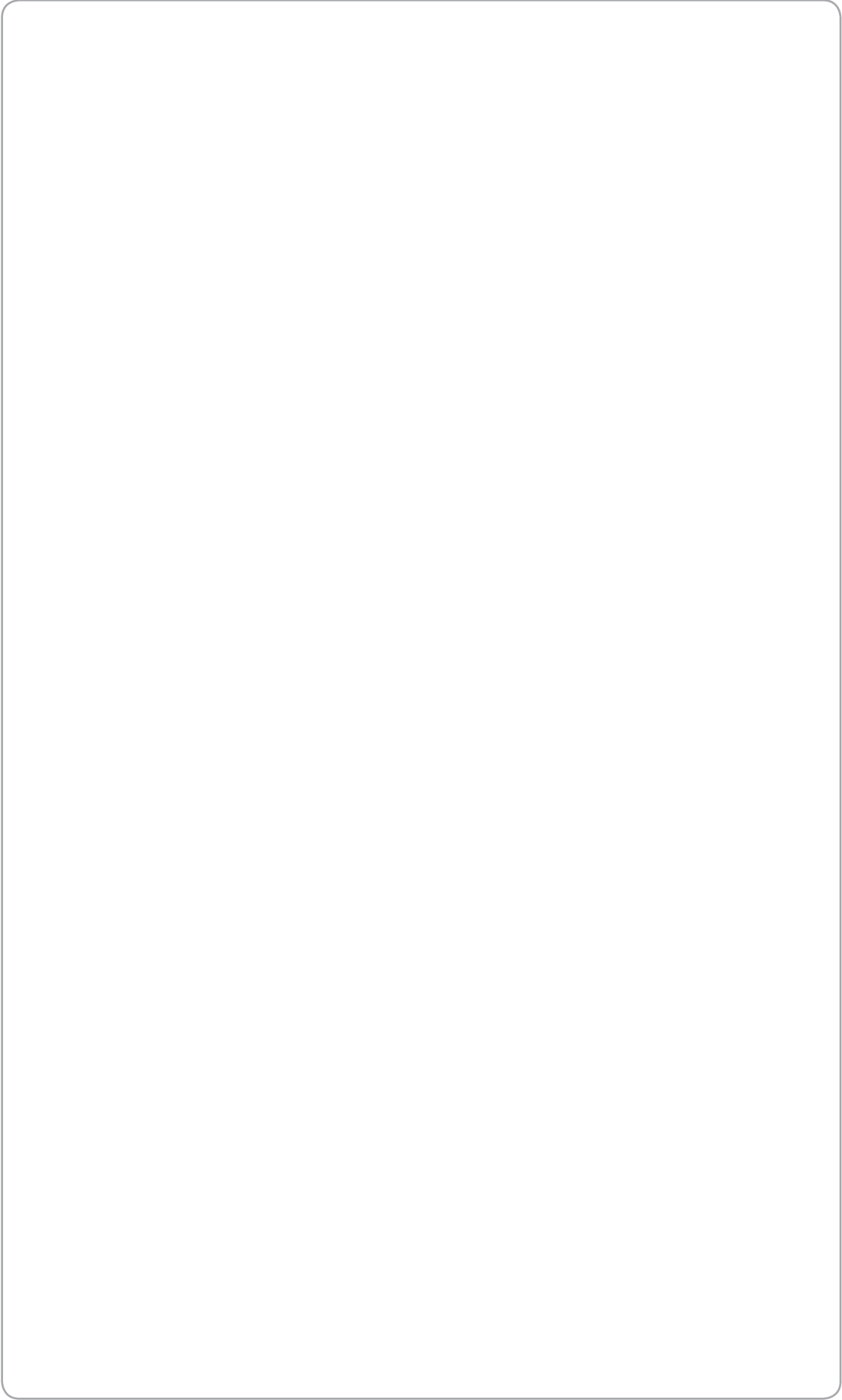
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(Total for Question 2 is 8 marks)



SECTION B: A trip to Lenster

Answer all questions in this section.

Write your answers in the spaces provided.

- 3 Dave and Mia want to take their 3 children on a day trip to Lenster. They need to buy train tickets for all the family.

Mia sees this advert.

Mid England Train Company
Group Saver Offer
For a group of 4 people
Any mix of adults and children
Buy a standard ticket at $\frac{1}{2}$ price for each of 4 people.
Extra child tickets £1 each.

Mia knows

a standard ticket is £19
a normal child ticket is £7.25

Mia uses the Group Saver Offer.
She thinks she saves more than £20

Is Mia correct?
Show why you think this.

(6)

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(Total for Question 3 is 6 marks)

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P 4 6 7 9 5 A 0 9 2 0

4 Dave and Mia live in Drayton.

It takes $\frac{1}{4}$ hour to get to Drayton station.

They want to get to the station 20 minutes before the train leaves.

They want to arrive in Lenster between 10 am and 10:30 am.
They must travel on a Mid England train to use the Group Saver Offer.

Here is the timetable.

	C	M	C	M	C	C	C	M	C
Drayton	08:41	08:47	09:10	09:12	09:41	09:47	10:06	10:09	10:15
Lenster	09:27	09:48	09:55	10:18	10:27	10:24	10:53	10:52	10:50

Key: **M** Mid England Trains
C Country Trains

(a) What is the latest time they should leave home?

(3)

Use the box below to show clearly how you get your answer.



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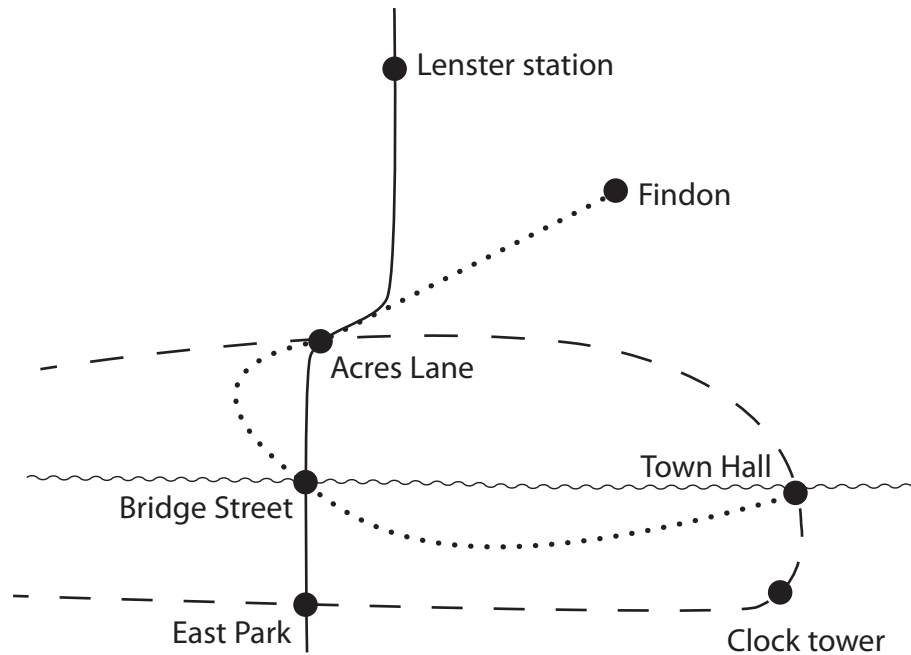
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The family arrive at Lenster station and get a tram to visit the clock tower.
The diagram below shows the tram map for Lenster.

(b) Find a route from Lenster station to the clock tower with only one change of tram line.

(2)



Key:

- Line W
- - Line X
- ~ ~ Line Y
- Line Z

Fill in the boxes below to show the route.

From Lenster station go on Line

Change at

Then go on Line to the clock tower.

(Total for Question 4 is 5 marks)



P 4 6 7 9 5 A 0 1 1 2 0

5 The weather forecast shows a 25% chance of rain.

(a) What is the likelihood of rain?

(1)

Tick the box to show the correct likelihood.

Impossible	Unlikely	Even chance	Likely	Certain
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Dave, Mia and their 3 children go for lunch at an outdoor cafe.

Price list			
<u>Drinks</u>		<u>Food</u>	
Tea	£1.65	Cheese on toast	£2.55
Coffee	£1.65	Soup of the day	£2.95
Cola	£1.75	Baked potato	£2.45
		Ham rolls	£2.25

Dave orders a baked potato for each person.

They are all going to choose a drink.

(b) Choose a drink for each person.
What is the total cost for their food and drink?

Show clearly how you have checked your work.

(4)

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Use the box below to show clearly how you get your answer.



Large empty rectangular box for showing the solution process.

Use the box below to show clearly how you have checked your work.

Large empty rectangular box for showing the work check process.

(Total for Question 5 is 5 marks)

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SECTION C: Plastering

Answer all questions in this section.

Write your answers in the spaces provided.

- 6 Amir works for a builder.
He plasters walls and ceilings.

Amir has to plaster some walls in a house.

These are the instructions for mixing the base layer of plaster.

Mix 5 parts sand with 1 part cement.

Amir has 25 kg of cement.

(a) How much sand should Amir mix with 25 kg of cement for the base layer? (2)

Use the box below to show clearly how you get your answer.



Large empty box for showing the solution to question 6(a).

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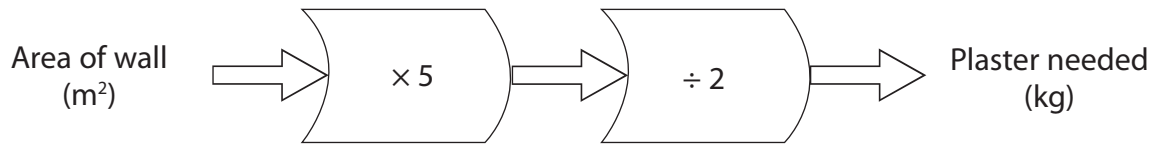
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Amir has to put a finishing layer of plaster on the walls.

These are the instructions to work out how much plaster he needs.



The area of the wall is 32 m^2 .

Amir has 4 bags of plaster.

Each bag contains 25 kg.

(b) Does Amir have enough plaster to cover the walls?

(4)

Use the box below to show clearly how you get your answer.



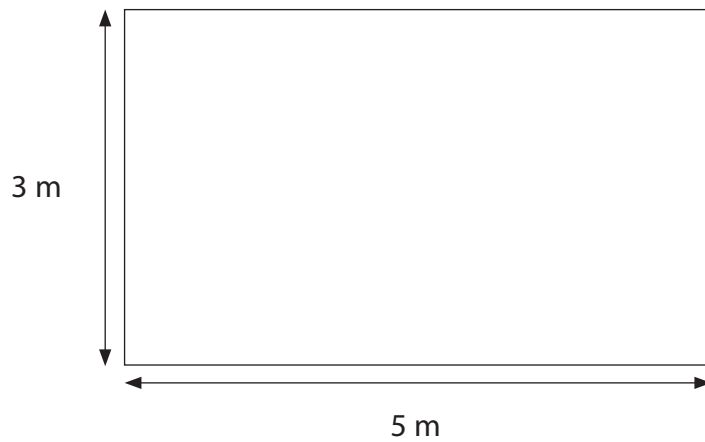
Large empty box for showing the calculation.

(Total for Question 6 is 6 marks)



7 Amir has a job to plaster a ceiling in a kitchen.

The ceiling is rectangular 3 m by 5 m.



Amir charges £23 to plaster each square metre of the ceiling.

He works out he should charge £300 for the job.

(a) Is Amir correct?
Show why you think this.

(3)

Use the box below to show clearly how you get your answer.



A large empty rectangular box for writing the answer.

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Amir has to add 20% VAT to a £300 bill.

(b) What is 20% of £300?

(2)

Use the box below to show clearly how you get your answer.



A large empty rectangular box for writing the solution to the question.

(Total for Question 7 is 5 marks)



8 Amir has to put ceiling boards on a living room ceiling.

The ceiling is rectangular 4.8 m by 7.2 m.

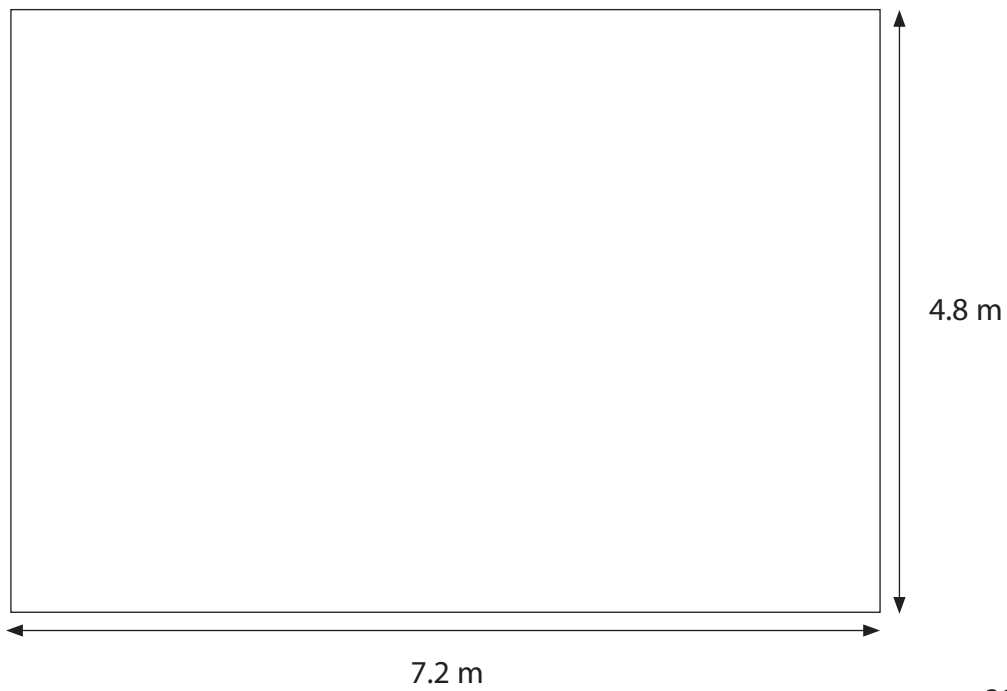


Diagram **NOT** accurately drawn

The boards are rectangular 1200 mm by 2400 mm.

The boards must cover the ceiling.
There must be no overlaps and no gaps.

How many boards does Amir need?

(5)

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Use the box below to show clearly how you get your answer.



A large, empty rectangular box with rounded corners, intended for the student to show their working out.

(Total for Question 8 is 5 marks)

TOTAL FOR PAPER IS 48 MARKS



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