Pearson Edexcel
Functional Skills

Centre Number

Candidate Number

Mathematics

Level 1

11 – 15 May 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 a **black** 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 ▶

P 4 5 1 8 1 A 0 1 2 0

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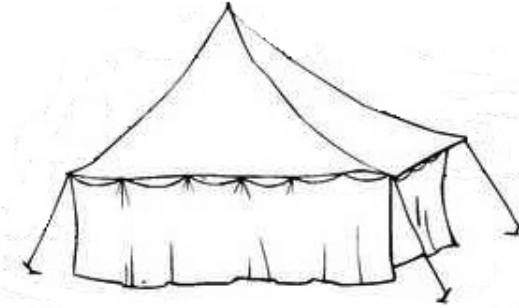
SECTION A: Party

Answer all questions in this section.

Write your answers in the spaces provided.

1 Rose is going to have a party.

She is going to buy a marquee.
The marquee costs £291.60

Here is information about the costs of extras for the marquee.

Extras	Cost
Table	£44.16
Safety pack	£81.43
Table covers	£12.87

Rose also wants to buy 2 tables, a safety pack and 2 table covers.
She has £500 to spend on the marquee and the extras.

(a) Is the total cost of the marquee and the extras Rose wants less than £500?

(3)

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

Rose needs to hire a heater for the marquee.
She finds this information.

Heater Hire

Normal price £45

20% online discount

(b) How much is the online discount for the heater?

(2)

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

(Total for Question 1 is 5 marks)

2 Rose is going to cook a joint of beef for the party.

Here is the rule she uses.

> Cook for 20 minutes for each 500 g
> Remove from the oven for 15 minutes before serving

The joint of beef weighs 4.5 kg.
Rose wants to serve the beef at 2 pm.

What is the latest time Rose can start cooking the joint of beef?

(5)

Use the box below to show clearly how you get your answer.
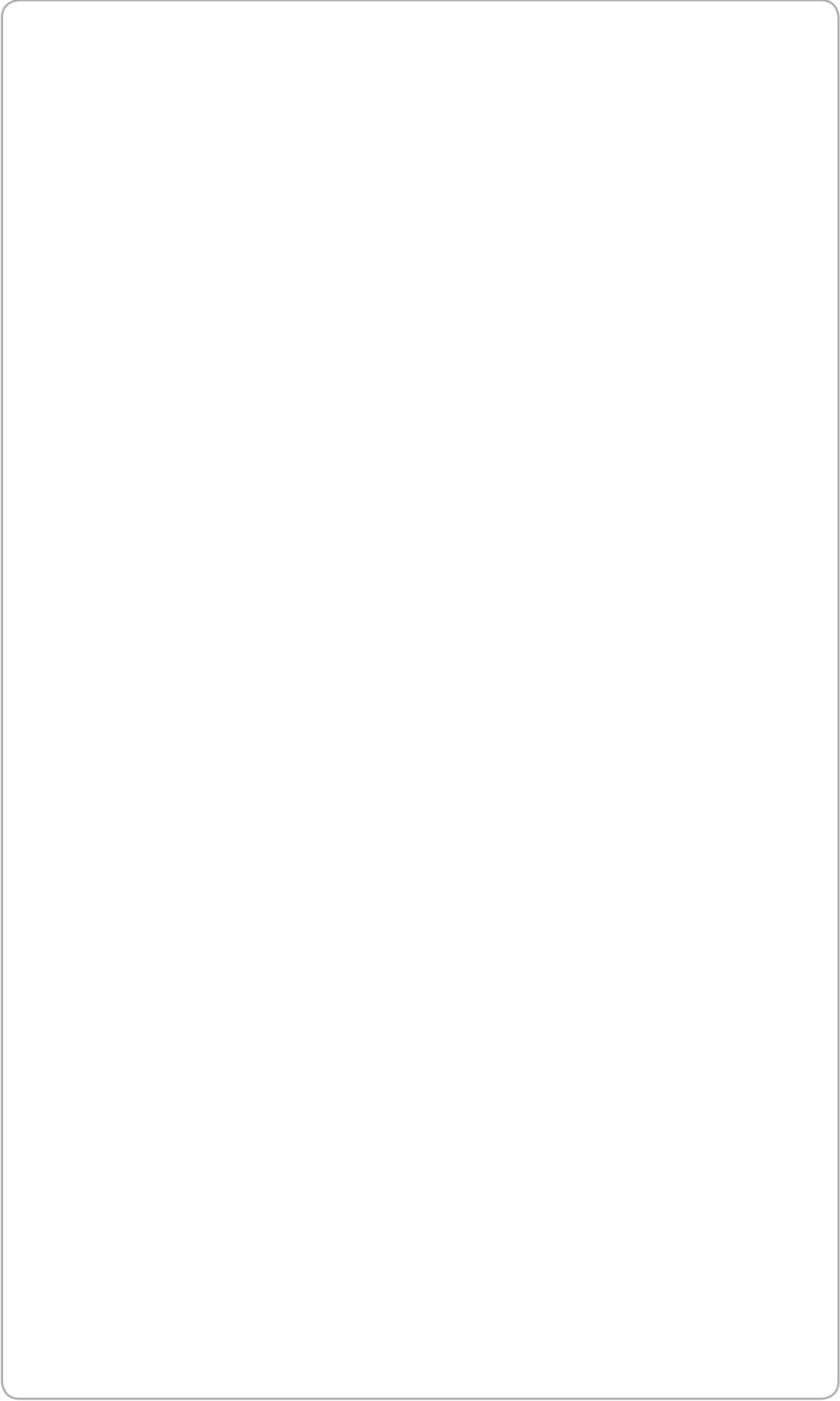
(Total for Question 2 is 5 marks)

3 Rose makes a fruit drink.

> **Fruit Drink**
>
> Mix
> 1 litre of apple juice and 3 litres of mango juice

Rose needs at least 20 litres of fruit drink for the party.
She has 6 litres of apple juice.

(a) Does Rose have enough apple juice to make at least 20 litres of fruit drink?

(3)

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

Rose buys 6 bottles of sparkling drink for the party.
There is 750 ml of drink in each bottle.

Rose is going to put 160 ml of drink in each glass.
She wants to have enough drink for 30 glasses.

(b) Does Rose have enough sparkling drink for 30 glasses?

(3)

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

(Total for Question 3 is 6 marks)

Answer all questions in this section.

Write your answers in the spaces provided.

4 Ben organises a staff training day.
He needs to make a time plan for these activities.

Activity	**Time needed**	**Start time for activity**
Introduction	$\frac{1}{4}$ hour	9 am
Guest speaker	1 hour	In the afternoon
Sales talk	$\frac{3}{4}$ hour	Any time
Task	2 hours	In the morning
Report writing	$1\frac{1}{4}$ hours	Any time

The training day must

- start at 9 am
- finish before 4 pm.

There must be a

- 15 minute break in the morning
- 45 minute break for lunch.

Lunch must start between 12 and 1 pm.

(a) Make a time plan for Ben.
   Show the start time and finish time for each activity. **(4)**

P 4 5 1 8 1 A 0 8 2 0

Write your time plan in the box below.

People will be in groups for the task.
There will be 4 people in each group.

Ben needs to write down the points he gives to each person during the task.

He will give points for:

- Communicating
- Involvement
- Leadership

Ben wants one record sheet for each group of 4 people.

(b) Design a record sheet for Ben.

(3)

Show your record sheet in the box below.

Ben gives out these profit figures for the report writing activity.

	Spring	**Summer**	**Autumn**	**Winter**
Profit	£8200	£12 800	£13 340	£16 030

Each person must write a statement about the profit figures.

(c) Write a statement about the profit figures.

(1)

Write your statement in the box below.

(Total for Question 4 is 8 marks)

5 Ben travels to the training day.
He can claim the money for his travel and expenses.

Ben writes down these details.

> Car journey 18 miles
> Car park £9.50
> Train ticket £45.20
> Fruit bar 95p

Ben will claim 45p for every mile he travels in his car.

How much can Ben claim in total for his travel and expenses?
Show a check of your working. **(5)**

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

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

(Total for Question 5 is 5 marks)

6 Jeff has to make 85 club sandwiches for lunch at the training day.
He is going to use 3 slices of bread to make each club sandwich.

Jeff knows that there are 24 slices of bread in each loaf.
He has 12 loaves of bread.

Does Jeff have enough loaves of bread to make 85 club sandwiches?

(3)

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

(Total for Question 6 is 3 marks)

SECTION C: New home

Answer all questions in this section.

Write your answers in the spaces provided.

7 Kat wants to buy a house for £94 250

She has saved £22 000 to pay for the house.

Her annual salary is £25 370
Kat can borrow up to 3 times her annual salary to help pay for the house.

(a) Is Kat going to have enough money to buy the house?

(3)

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

The house has solar panels on the roof to generate electricity.
Homeowners get money for generating electricity.

Dave is the current owner of the house.

Kat asks Dave how much money he gets for the electricity.
Dave says

> The mean average is about £1500 each year.

Dave gives Kat these figures.

Year	2012	2013	2014
Payment	£1380.50	£1550.24	£1499.23

(b) Is Dave correct to say the mean average is about £1500 each year?

(3)

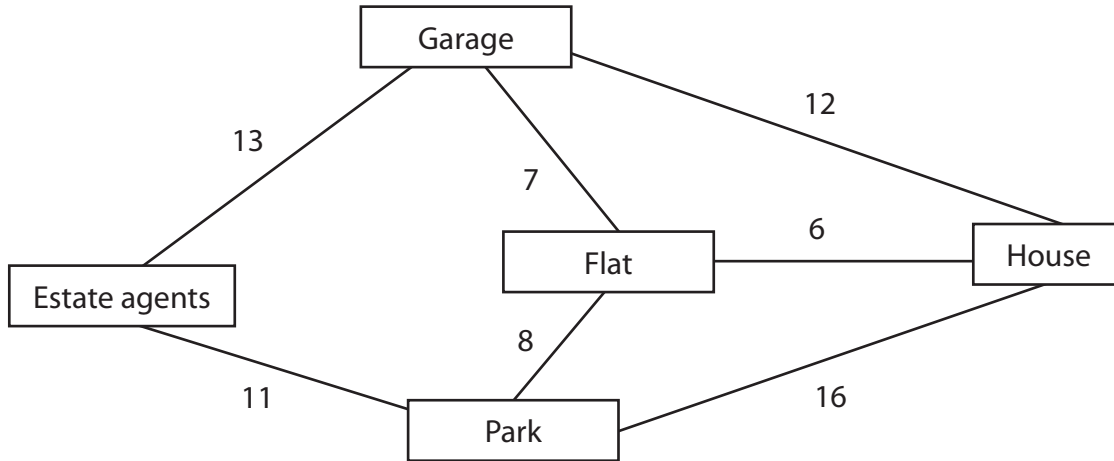Use the box below to show clearly how you get your answer.

(Total for Question 7 is 6 marks)

Turn over ▶

8 Kat plans to visit the house.
She starts at her flat, picks up the keys from the estate agents and drives to the house.

The diagram shows the time in minutes it takes to drive between the different places.

```
                    ┌─────────┐
                    │ Garage  │
                    └─────────┘
                  /      │      \
              13 /      7│       \ 12
                /        │        \
  ┌──────────────┐    ┌──────┐  6  ┌─────────┐
  │ Estate agents│    │ Flat │─────│  House  │
  └──────────────┘    └──────┘     └─────────┘
              \        8│        /
            11 \        │       / 16
                \    ┌──────┐  /
                 \───│ Park │─/
                     └──────┘
```

Kat needs to complete the journey in less than 45 minutes.

Find a route for Kat
Remember to check your route takes less than 45 minutes. **(4)**

Use the box below to show clearly how you get your answer.
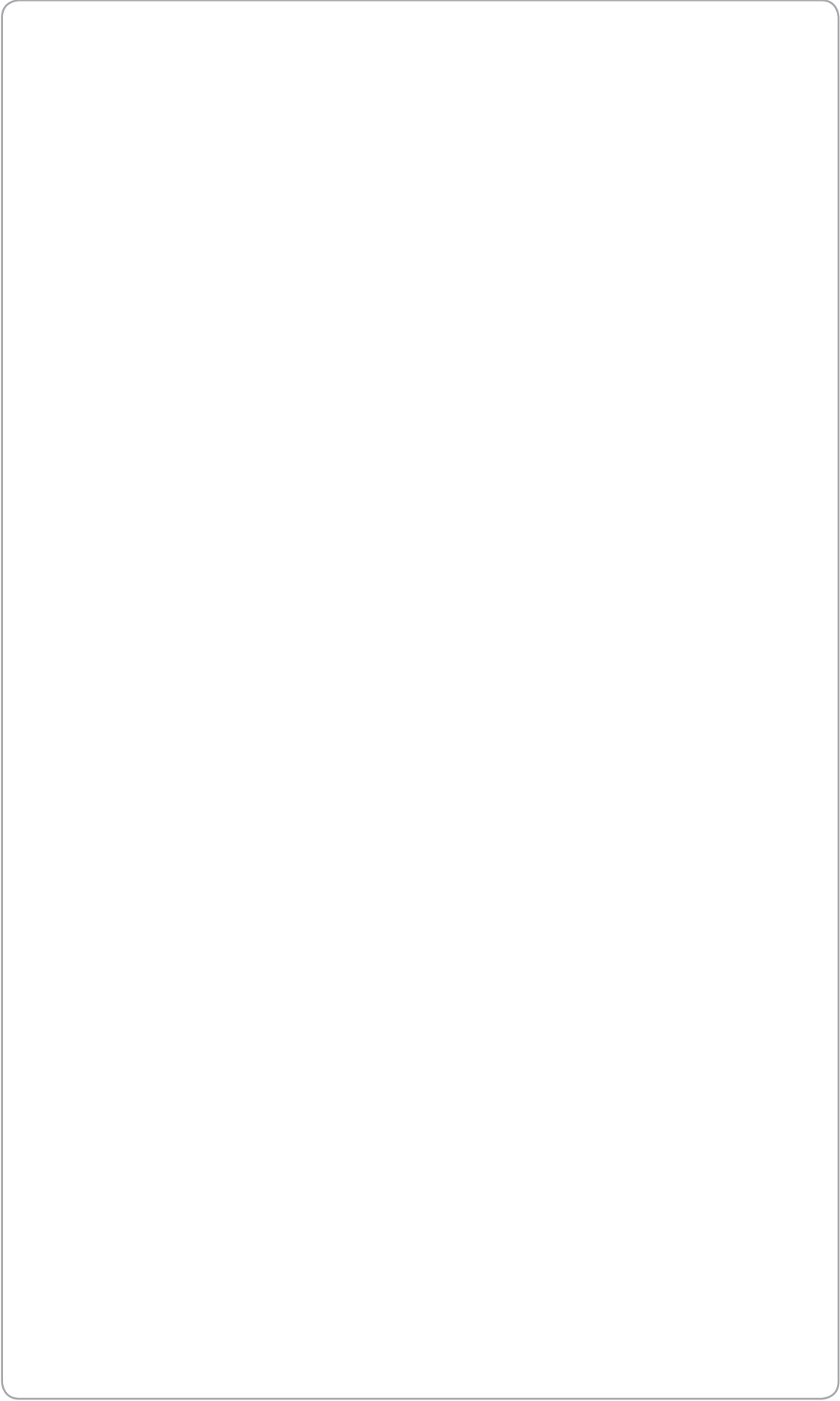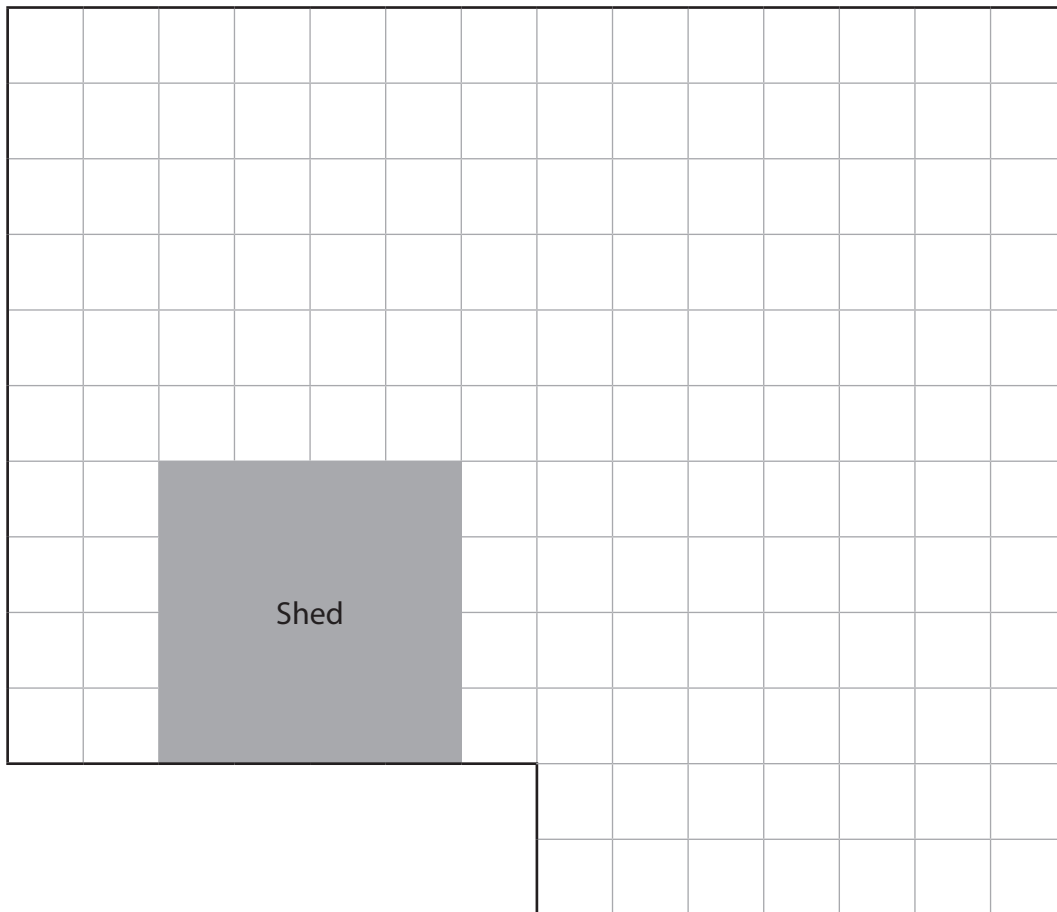
(Total for Question 8 is 4 marks)

9 Kat needs a rectangular space in the garden for her guinea pigs.
She draws a plan of the garden on a grid.

The space for the guinea pigs must be

- 1 m by 3 m
- at least 2 m away from the shed.

(a) Show the space for the guinea pigs on the grid.
Remember to use the key. **(2)**

Key: 1 square on the grid is 0.5 m by 0.5 m in the garden

Kat needs to put fencing around the perimeter of the space for the guinea pigs.
The space is rectangular 1 m by 3 m.

She has 9000 mm of fencing.

(b) Does Kat have enough fencing to put around the space for the guinea pigs?

(4)

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

(Total for Question 9 is 6 marks)

TOTAL FOR PAPER IS 48 MARKS

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