

Write your name here

Surname

Other names

**Pearson Edexcel
Functional Skills**

Centre Number

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Mathematics

Level 1



5 – 9 February 2018

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

| |
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| |
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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 to how much time to spend on each question.*
- **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.**
- **This sign shows where marks will be awarded for showing your check.**



Advice

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

Turn over ►

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Pearson

SECTION A: Cafe

Answer all questions in this section.

Write your answers in the spaces provided.

1 Jo works in a cafe.

She sells cups of tea and cups of coffee in the ratio 1:3

On Monday Jo sold a total of 244 cups of tea and cups of coffee.

Jo thinks she must have sold more than 200 cups of coffee.

(a) Is Jo correct?
Show a check of your working.

(4)

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

Use the box below to show your check.



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Jo uses the price list below.

| | | | |
|---------------|-------|----------|-------|
| Tea | £1.75 | Biscuit | 65p |
| Coffee | £2.25 | Muffin | £1.95 |
| Hot chocolate | £2.99 | Sandwich | £2.55 |
| Orange juice | £1.99 | Roll | £2.75 |

A customer buys

- 2 cups of coffee
- 1 cup of tea
- 1 muffin
- 3 sandwiches.

(b) How much does the customer spend in total?

(3)

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



There is a lucky dip for children at the cafe on Monday.

Each child who has a go on the lucky dip wins a prize.

There are a total of 40 prizes.

The prizes are

- 20 red lollipops
- 10 green lollipops
- 5 yellow lollipops
- 5 blue lollipops.

Bradley is the first child to have a go on the lucky dip.

(c) What is the likelihood that Bradley wins a blue lollipop?

(1)

Tick (✓) a box to show your answer.

certain

likely

even chance

unlikely

impossible

(Total for Question 1 is 8 marks)

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2 The cafe is open 6 days a week.

The manager says he needs to serve a mean number of 65 people a day to make a profit.

This table shows the number of people served in the cafe each day for one week.

| | Mon | Tue | Wed | Thu | Fri | Sat |
|------------------|-----|-----|-----|-----|-----|-----|
| number of people | 55 | 75 | 72 | 19 | 71 | 125 |

Jo says the mean number of people served a day is more than 65

(a) Is Jo correct?

Show why you think this.

(3)

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



The manager needs to buy paper cups for the cafe.

He sees these two offers.

Offer 1
Box of 500 cups
£15.00 per box

Offer 2
Box of 1000 cups
£39.00 per box
Buy 3 boxes get a
4th box free

The manager needs to buy 4000 paper cups.
He wants to pay the least amount of money.

(b) Which offer should the manager choose?
Show why you think this.

(5)

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

Empty box for showing the answer.

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(Total for Question 2 is 8 marks)



SECTION B: A meal

Answer all questions in this section.

Write your answers in the spaces provided.

3 Billy invites 11 friends to his house for a meal.

He decides to make apple pie.

Billy has this list of ingredients.

Apple pie
serves 4 people

750 g apples
25 g caster sugar
150 g plain flour
50 g butter
75 g brown sugar

Billy has 2500 g of apples.

(a) Does he have enough apples to make apple pie for 12 people?
Show a check of your working.

(4)

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

Large empty box for showing working.

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Show your check in the box below.



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Billy is going to cook a stew for the main course.

These are the cooking instructions.

cook onions for 10 minutes
add vegetables and cook for 5 minutes
add stock and cook for 25 minutes
stir in lentils and cook for 40 minutes

Billy starts cooking at 4:30 pm.

He wants to have the stew ready for 6 pm.

(b) Will the stew be ready for 6 pm?

(3)

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

Empty box for showing the answer.

(Total for Question 3 is 7 marks)

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4 Billy makes a fruit cocktail to drink.

He mixes

- 2 litres of lemonade
- 1 litre of orange juice
- 1.5 litres of pineapple juice
- 750 ml of grape juice.

Billy will serve the fruit cocktail in glasses that each hold 330 ml when full.

He thinks he has made enough fruit cocktail for 24 full glasses.

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

(4)

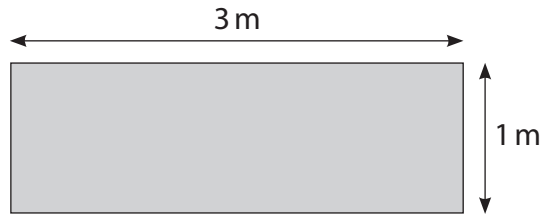
Use the box below to show clearly how you get your answer.

Empty box for showing the answer.



Billy has two tables to seat the 12 people.
The top of each table is a rectangle 3 m by 1 m.

Each person sat at a table needs a space of length 1 m.



Billy wants to put the two tables together so that

- they touch along one edge
- all 12 people can sit at a table.

(b) Draw a diagram to show how Billy can put the two tables together.

(2)

Use the box below to draw your diagram.

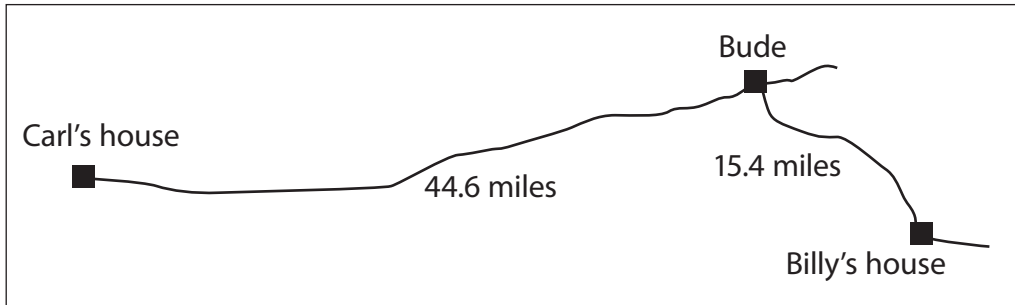
A large, empty rectangular box with rounded corners, intended for the student to draw a diagram showing how two 3m by 1m tables can be arranged together to seat 12 people.

(Total for Question 4 is 6 marks)



5 Billy has invited Carl to the meal.

Carl has this map of the route from his house to Billy's house.



Carl knows his average speed for the journey will be 40 mph.

He uses this rule to find the journey time.

$$\begin{array}{|c|} \hline \text{total distance} \\ \hline \text{in miles} \\ \hline \end{array} \div \begin{array}{|c|} \hline \text{average speed} \\ \hline \text{in mph} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{journey time} \\ \hline \text{in hours} \\ \hline \end{array}$$

Work out the journey time for Carl.

(3)

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

(Total for Question 5 is 3 marks)



SECTION C: Garden design

Answer all questions in this section.

Write your answers in the spaces provided.

- 6 Kay is going to do some work in her garden.
Her garden is in the shape of a rectangle.

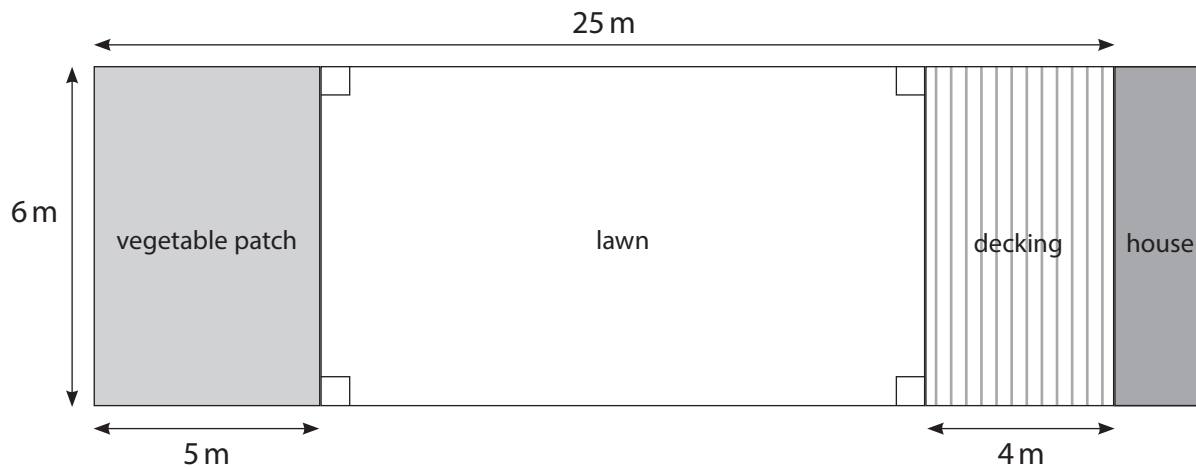
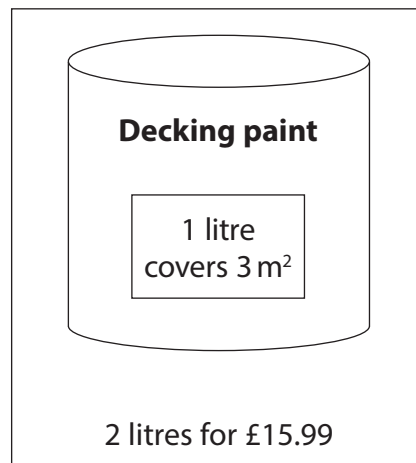


Diagram **not**
accurately drawn

- Kay wants to paint the decking.
She finds this paint.



Kay thinks she can buy enough paint to cover the decking for less than £65

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

(6)

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



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Kay wants to plant flowers around the edges of the lawn.

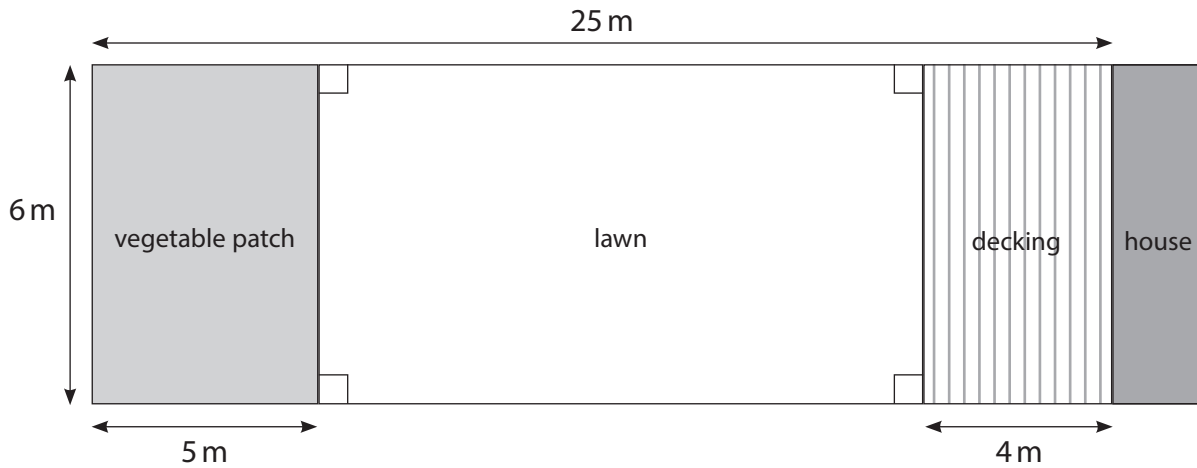


Diagram **not** accurately drawn

(b) What is the total length around the edges of the lawn?
Show a check of your working.

(4)

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

Show your check in the box below.



(Total for Question 6 is 10 marks)

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- 7 Kay buys 3 packets of seeds.
There are 50 seeds in each packet.

She plants 60% of the seeds in her vegetable patch.

Kay plants the seeds in rows.
She plants 15 seeds in each row.

(a) How many rows of seeds does Kay plant?

(4)

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

Empty box for showing the solution to the problem.



Kay grows tomatoes.
She has 8 plants.

She wants to see if the same weight of tomatoes grows on each plant.

Kay records the weight of the tomatoes from each plant.

These are her results.

| Plant | A | B | C | D | E | F | G | H |
|-------------|-----|-----|---|-----|-----|------|------|-----|
| Weight (kg) | 6.6 | 5.9 | 4 | 3.2 | 2.9 | 5.44 | 7.01 | 4.4 |

(b) What is the range of the weights?

(2)

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

(Total for Question 7 is 6 marks)

TOTAL FOR PAPER IS 48 MARKS



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