

Write your name here

Surname

Other names

**Edexcel**  
**Functional Skills**

Centre Number

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Candidate Number

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# Mathematics

Level 1



4–8 February 2013

**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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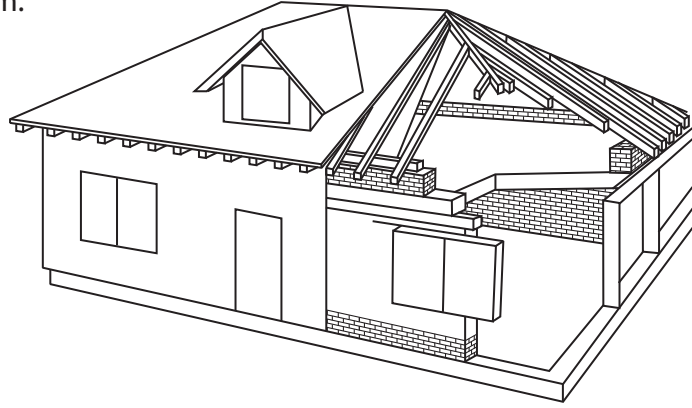
**PEARSON**

## SECTION A: A loft conversion

Answer all questions in this section.

Write your answers in the spaces provided.

- 1 Robina has a loft in her house.  
She wants to convert it into a bedroom.  
Robina finds out all the costs.



Building work £13 500  
Fitted wardrobe £475  
Bedroom furniture £600  
Decoration £250

(a) What is the total cost?

(1)

Write your answer in the box below.



Robina wants to pay less for the building work.

The builder offers her a discount of 10% on the £13 500 cost.

Robina decides to accept the offer.

(b) How much is the discount?

(2)

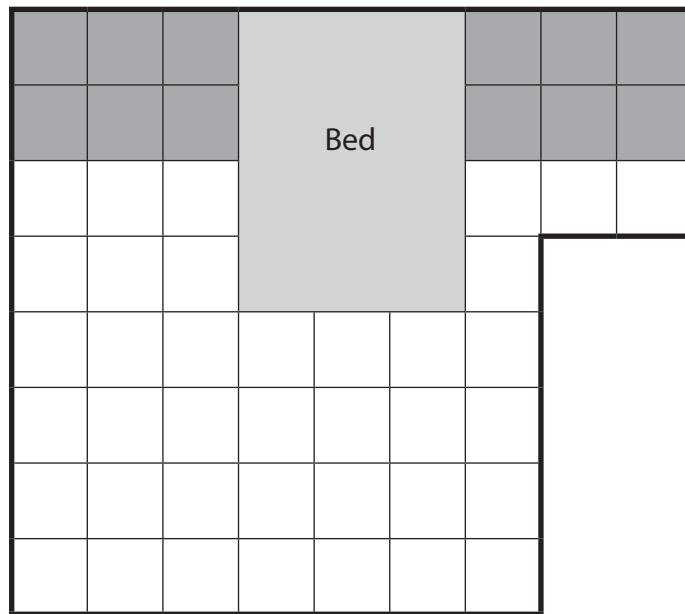
Use the box below to show clearly how you get your answer.



**(Total for Question 1 is 3 marks)**



- 2 Robina has a plan of the floor in the new bedroom.  
She shades the space where she cannot put more furniture.



Key: 1 cm on the plan is 50 cm in the new bedroom

—— Wall

Robina wants to put a fitted wardrobe and a TV cabinet into the new bedroom.

The wardrobe needs

- to be fitted against a wall
- a rectangular floor space 100 cm by 250 cm
- to be at least 50 cm from the bed.

The TV cabinet

- needs a rectangular floor space 100 cm by 50 cm
- must **not** be against a wall or any furniture.

(a) Draw the fitted wardrobe and the TV cabinet on the plan.

(4)



Robina wants to put a rug on the floor in the new bedroom.

She wants to put the rug in a rectangular space which is 2 m by 1 m

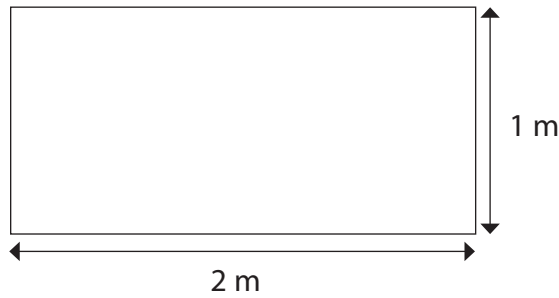


Diagram **NOT** accurately drawn

Robina finds some rugs she likes.

Here is information about the rugs.

Rug	Width	Length
Rose	90 cm	150 cm
Pansy	120 cm	180 cm
Mint	150 cm	150 cm
Dill	140 cm	200 cm
Ivy	60 cm	120 cm

(b) Which of these rugs could Robina use?

(2)

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



Robina wants to buy this TV for the new bedroom.  
She thinks she can get the money by selling some items.



TV for sale  
£100

Robina makes a tally chart of the items she can sell.

Item	Tally
Computer games	///
DVDs	/// ///
CDs	/// /// /// /

These are the prices Robina is going to charge.

- Computer games      £10 each
- DVDs                    £4 each
- CDs                      £2.50 each

(c) Show how Robina can get at least £100 by selling items at these prices.

(4)

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



(Total for Question 2 is 10 marks)



3 Robina hears on the radio,

Having a loft conversion adds an average of twenty thousand eight hundred and seventy six pounds to the value of your house.

Before Robina's loft conversion her house had a value of £194 500

She finds out the value of her house is now £214 950

Robina thinks her house has gained more than the average amount.

Is Robina 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.

(Total for Question 3 is 3 marks)



## SECTION B: Social club

Answer all questions in this section.

Write your answers in the spaces provided.

4 Jon wants to join a social club.

The table shows information about types of membership of the club.

Type of membership	Annual fee (£)	Details
A	55	Book group
B	60	Money off the cost of activities
C	95	Book group and money off the cost of activities

Here are the activities at the social club and their prices.

Activity	Full cost (£)	Cost with type B or type C membership (£)
Organised walk	18.00	13.50
Weekend break	128.00	100.80
Film evening	15.00	12.00

Jon wants to go to the book group.

He also wants to go on these activities

- 2 organised walks
- 1 weekend break.

Jon thinks his cheapest option is to have a type A membership and to pay the full cost of the activities.

Is Jon correct?  
Show why you think this.

(4)





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 work.

**(Total for Question 4 is 4 marks)**



P 4 2 4 4 0 A 0 9 2 0

5 Sandra needs to organise a walk for the social club.

The diagram shows footpaths near Exton.

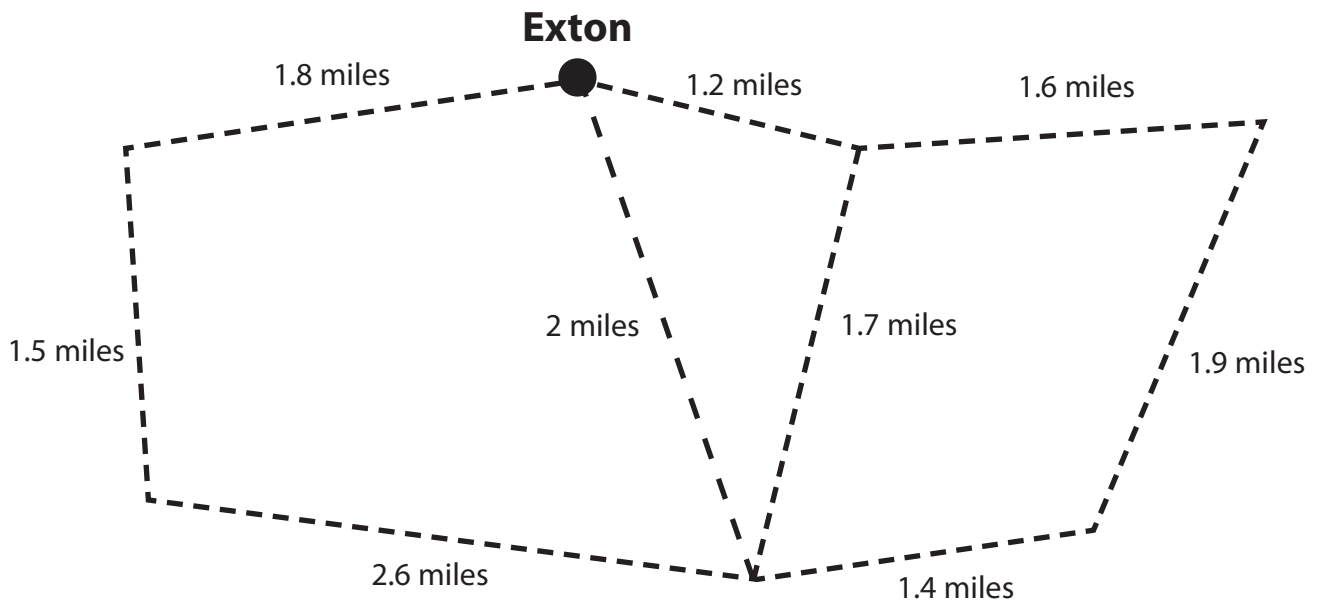


Diagram **NOT** accurately drawn

Sandra wants to plan a walk

- between 7.5 and 8.5 miles long
- to start and finish at Exton
- without repeating any section of the walk.

Plan the walk for Sandra.  
Show how you have checked your answer.

(4)



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 work.

**(Total for Question 5 is 4 marks)**



6 Sandra books a hall for a film evening from 8 pm to 11 pm.

She writes some notes about the evening.

Organise hall – three quarters of an hour  
Show films – 2 films lasting 40 minutes each  
Discussion – half an hour  
Refreshments – 1 hour

(a) Has Sandra booked the hall for enough time? (4)

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



Blank area for writing the answer to question (a).

Sandra does a survey at each film evening.

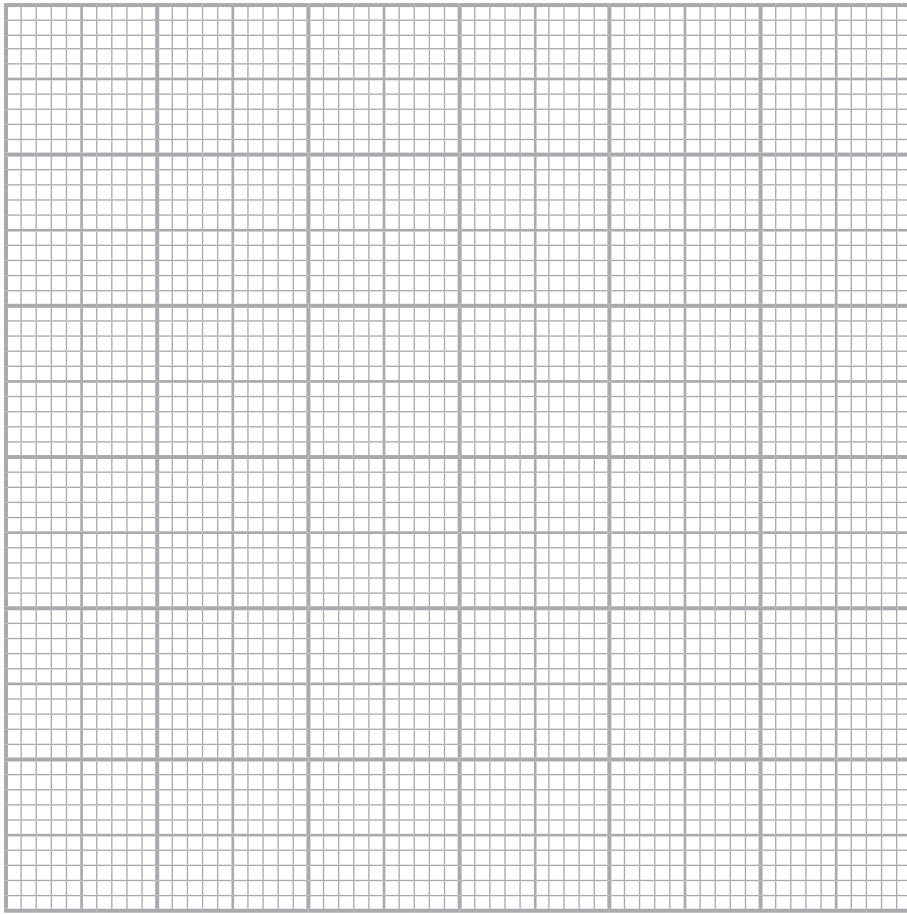
Here are the total responses at the end of the year.

Response	Awful	Poor	OK	Good	Excellent
Number of people	18	10	38	73	115

Sandra wants to display this information for the annual club meeting.

(b) Make a graph or chart for Sandra. (3)





Sandra has to write a comment about the survey for the meeting.

(c) Write a comment for Sandra.

(1)

Write your answer in the box below.

**(Total for Question 6 is 8 marks)**



**SECTION C: College canteen**

**Answer all questions in this section.**

**Write your answers in the spaces provided.**

- 7 Sean manages a college canteen.  
He needs to buy laminate to cover the floor in the staff dining room.

The staff dining room is rectangular 6 m by 10 m

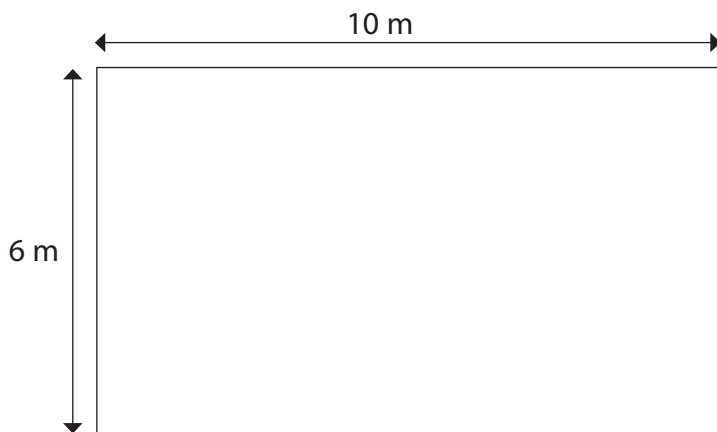


Diagram **NOT** accurately drawn

Sean chooses laminate which costs £8.49 for each square metre.

What is the total cost of the laminate?

(3)

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



A large empty rectangular box for writing the answer and showing the calculation.

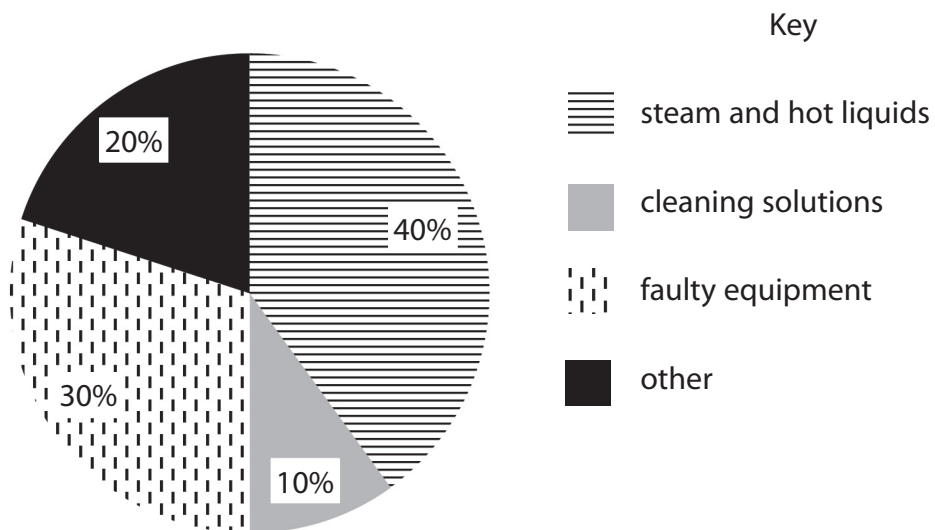
**(Total for Question 7 is 3 marks)**



8 Sean has to talk to the canteen staff about safety in the kitchen.

He shows them this pie chart about how accidents happen in kitchens.

**Pie chart showing causes of accidents in kitchens**



Sean tells the staff

'the pie chart shows that a quarter of all accidents in kitchens are caused by faulty equipment.'

Is this true?

(2)

Explain your answer in the box below.

**(Total for Question 8 is 2 marks)**

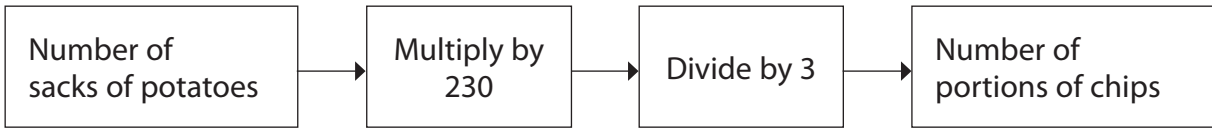


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9 Sean must provide 500 portions of chips next week.

He needs to calculate the number of sacks of potatoes to buy.

Here is the rule Sean uses.



Sean buys 6 sacks of potatoes for next week.

(a) Does Sean have enough sacks of potatoes for 500 portions of chips?

(3)

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





Sean wants to try out some healthy meal options in the canteen.  
He has a recipe for vegetable lasagne.

Here is a list of the vegetables in the recipe.

**For 4 people**  
1 aubergine  
1 onion  
1 red pepper  
8 plum tomatoes

Sean wants to make the recipe for 20 people.

(b) How many tomatoes does Sean need? (3)

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



**(Total for Question 9 is 6 marks)**



**10** Sean wants to offer a meal deal in the canteen.

The meal deal includes a main course, a dessert and a drink.

Sean decides to offer one of these deals.

### Deal A

Buy a main course, dessert and drink.  
Get £2.50 off the total price.

### Deal B

Buy a main course, dessert and drink.  
Get the main course for  $\frac{1}{2}$  price.

### Deal C

Buy a main course, dessert and drink.  
Get a third off the total price.

The normal prices are

- main course – £3.60
- dessert – £1.50
- drink – 90p

Sean wants to offer the deal which gives the **smallest** discount.

Which deal should Sean offer?

(5)



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 work.

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**(Total for Question 10 is 5 marks)**

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**TOTAL FOR PAPER IS 48 MARKS**



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