

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



19–23 March 2012

**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.**



## Advice

- Read each question carefully before you start to answer it.
- Show all stages in the calculations.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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**PEARSON**

## SECTION A: Gymnastics competition

Answer all questions in this section.

Write your answers in the spaces provided.

- 1 Clare is planning a gymnastics competition in a sports hall. She needs to work out how many hours the competition will take.

Clare makes a list of the 5 stages in the competition.

1. Meet the gymnasts (15 minutes)
2. Warm up exercises (30 minutes)
3. 4 rounds (each round lasts 30 minutes)
4. Work out results (15 minutes)
5. Give out medals (20 minutes)

Clare books the sports hall for the competition from 9 am to 1 pm.

(a) Is this enough time for the competition?

(3)

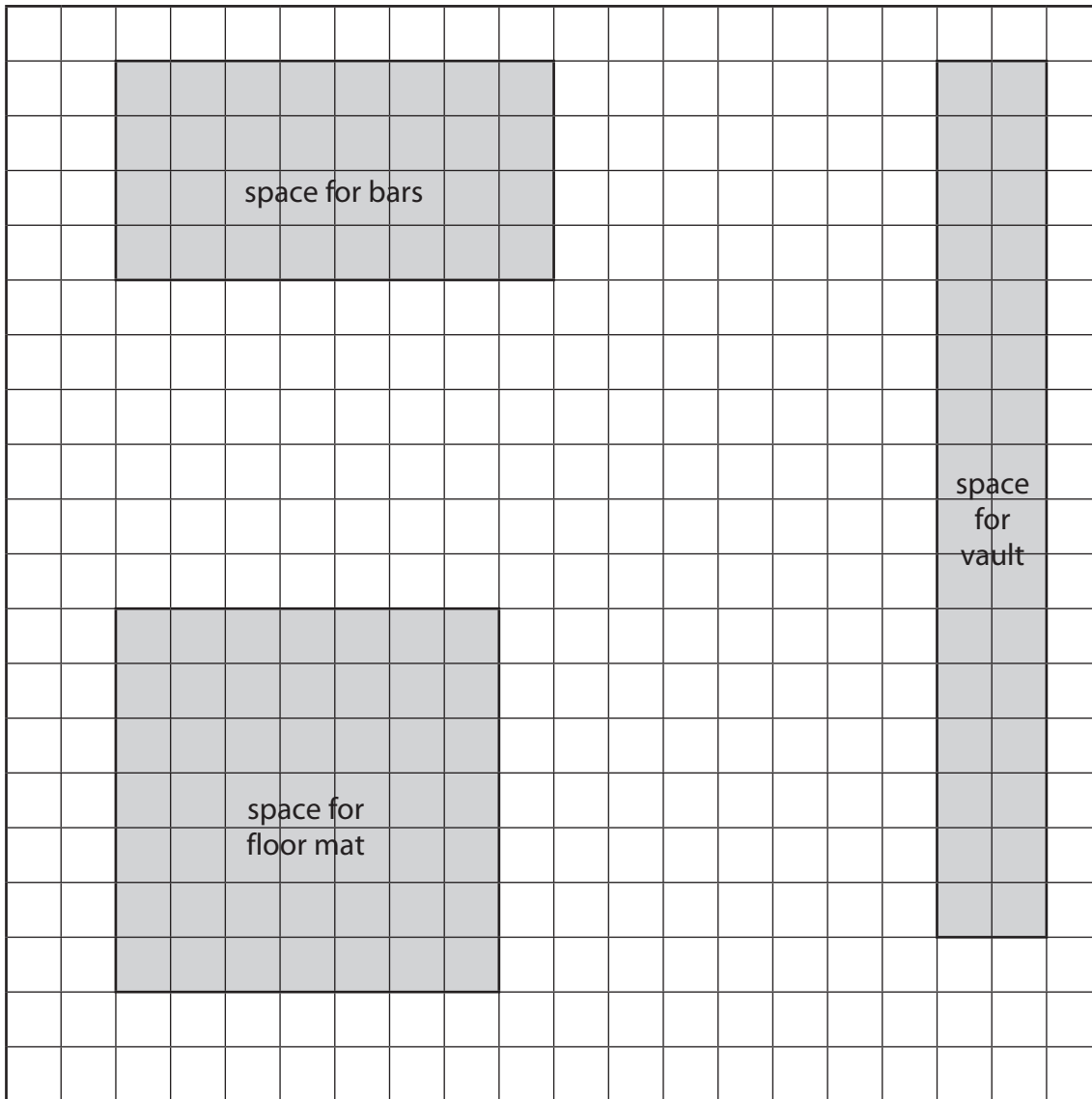
Use the box below to show clearly how you get your answer.



Clare needs to show the sports hall manager where the equipment should go.

Clare draws a plan of the sports hall.

She shows shaded spaces for the bars, the vault and the floor mat.



Key: 1 small square on the plan = 2 m by 2 m in the sports hall

The space for the beam needs to be a rectangle

- 18 m by 4 m
- at least 4 m from the edges of the hall
- at least 4 m from each of the spaces for bars, vault and floor mat.

(b) Draw a space for the beam on the plan. (3)



There will be these 4 clubs in the competition.

- Avon
- Beech
- Flair
- Hart

There will be 4 events.

- Bars
- Beam
- Floor
- Vault

There will be 4 rounds in the competition.

There will be 4 different events in each round.

Each club will do each event once.

Clare needs to decide which event each club will do in each round.

(c) Complete the table for Clare.

(3)

	Round 1	Round 2	Round 3	Round 4
Avon				
Beech				
Flair				
Hart				

(Total for Question 1 is 9 marks)



2 Here are the scores for Avon club.

Olga looks at the scores for bars.

She says

I got the highest score on the bars in our club.

	Bars	Beam	Floor	Vault
Billie	6.8	7.6	6.9	7.7
Jane	7.1	8.1	6.85	7.75
Manjit	7.6	7.5	7.4	8.1
Olga	7.35	8.2	7.1	8.2
Ruth	6.75	7.9	7.6	6.9
Sara	7.8	8.45	7.75	7.8

(a) Is Olga right?  
Show why you think this.

(1)

Write your answer in the box below.

To find a gymnast's final score, add up the scores for the 4 events.

(b) Work out Sara's final score.

(1)

Write your answer in the box below.

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



**3** Clare needs to work out if the competition made a profit.

Clare paid for

hall hire:	£200
12 medals:	£1.50 each
other costs:	£25

Clare got money in from

competition fees:	£192
32 entrance fees:	£2 each

Did the competition make a profit?

(5)

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.



A large empty rectangular box for writing answers.

**(Total for Question 3 is 5 marks)**



## SECTION B: Beauty salons

Answer all questions in this section.

Write your answers in the spaces provided.

4 Jolanta works in a beauty salon in Ashton.

Andie phones the salon to book an appointment with Jolanta.



Andie says

I want to have a body wrap.  
I can come in any day but not Monday.  
I can only come in after 12.00

A body wrap takes 90 minutes.

The table shows Jolanta's booking sheet.

Time	Mon	Tue	Wed	Thu	Fri	Sat
10:30 – 11:00	■	■	□	■	■	□
11:00 – 11:30	■	■	■	■	■	□
11:30 – 12:00	■	■	■	□	■	□
12:00 – 12:30	■	■	■	■	■	■
12:30 – 1:00	■	□	■	■	■	□
1:00 – 1:30	□	■	□	■	□	■
1:30 – 2:00	□	■	□	□	□	■
2:00 – 2:30	□	□	□	□	■	■
2:30 – 3:00	□	■	■	□	□	■

Key:  already booked  
 not yet booked

(a) On the booking sheet, show the day and the full time for the 90 minute body wrap.

(2)





There is a special offer at the salon.

**25% off any luxury treatment this month.**

Susie has a luxury treatment this month.

The normal price is £60.

(b) How much money does Susie get off the normal price? (2)

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.



Molly works at the salon from Tuesday to Saturday.

The table shows her sales last week.

Molly's sales last week				
Tue	Wed	Thu	Fri	Sat
£190	£175	£155	£210	£235

Molly gets a bonus for the week if her daily sales have a mean average of £200 or more.

(c) Does Molly get a bonus for her sales last week?

(3)

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



(Total for Question 4 is 7 marks)



5 Ross is the salon owner.

He buys aloe vera gel in 4 litre containers.



The workers use about 250 ml of the gel in the salon each day.

How many days should a 4 litre container of the gel last?

(3)

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



(Total for Question 5 is 3 marks)



P 4 0 7 2 3 A 0 1 1 2 0

6 Ross owns beauty salons in Ashton, Borden, Hove and Leek.

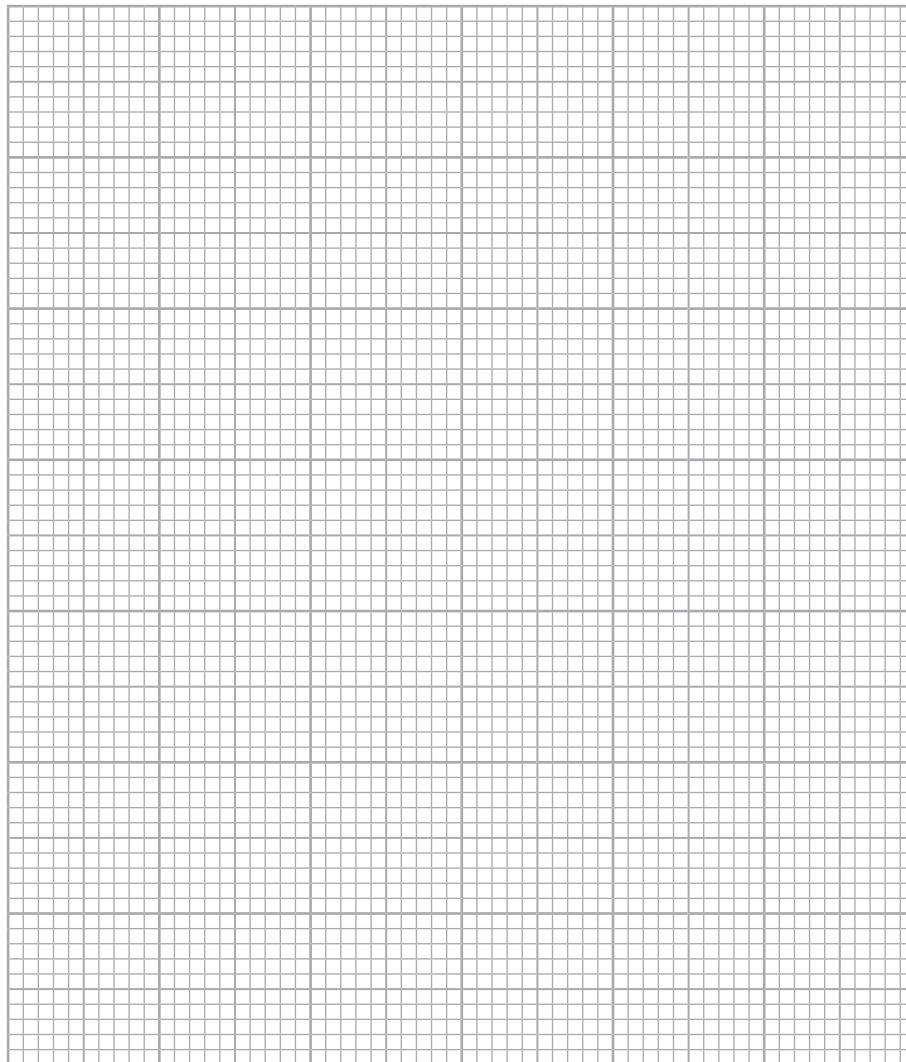
The table shows the profit from each salon last year.

Salon	Ashton	Borden	Hove	Leek
Profit	£30 000	£23 500	£19 500	£26 000

Ross wants a graph or chart to display this information for a meeting.

(a) Make a graph or chart for Ross.

(3)



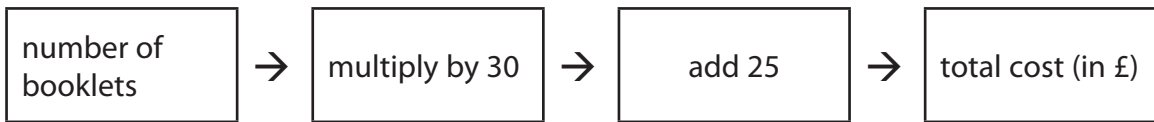
Ross wants to compare the profits from the salons.

(b) Write a comment about the profits for Ross. (1)

Write your comment in the box below.

Ross decides to get gift vouchers printed to sell in the salons.  
A printer makes booklets of gift vouchers.

The printer uses this rule to work out the amount to charge.



Ross buys 4 booklets.

(c) Work out the total cost of the 4 booklets. (2)

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



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



### SECTION C: Planning a garden

Answer all questions in this section.

Write your answers in the spaces provided.

- 7 Nadim wants to design the garden of his new house.  
He wants to cover part of the garden with pebbles.

The area for pebbles will be a rectangle.  
It will be 8 m by 6 m.

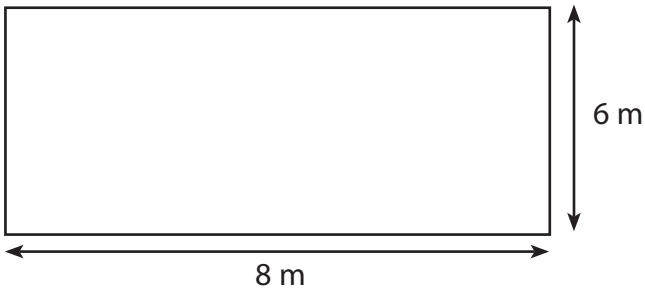


Diagram **NOT**  
accurately drawn

Nadim can buy pebbles in bags.

Each bag of pebbles covers an area between  $9 \text{ m}^2$  and  $10 \text{ m}^2$ .

Nadim thinks he needs 5 bags of pebbles.

- (a) Is Nadim right?  
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.



There is a rectangular space for bins in the garden.

Nadim wants to put wooden screens along three sides of the space.

He will not put screens along the fourth side.

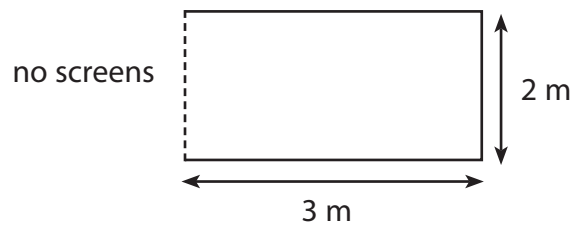


Diagram **NOT**  
accurately drawn

Nadim chooses wooden screens that are 1 m wide.

Each screen costs £14.50

(b) What is the total cost of the wooden screens?

(3)

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



Large empty box for showing the calculation for part (b).

(c) Show a check for part (b) in the box below.

(1)

Large empty box for showing the check for part (b).

(Total for Question 7 is 7 marks)



8 Nadim wants a summerhouse in his garden.

He finds a summerhouse he likes.

Nadim can buy this summerhouse from two different companies.



### Outdoor Living

**Deposit:** £240

**Monthly cost:**  
12 monthly payments of £180

**Setting up:** Free

### Cabins & More

**Cost:** £2184

**Setting up:** £168

Nadim wants to pay the cheapest total cost for the summerhouse.

Which company should he buy the summerhouse from?

(5)

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





[Empty rectangular box for answer]

**(Total for Question 8 is 5 marks)**



9 Nadim wants to put a bush or a small tree in the garden.

He finds this information from a garden centre.

Name of bush or small tree	Cost (£)	Maximum height (metres)	Months when it flowers
Holly	16.99	1.5	December to February
Buddleia	6.99	2	June to September
Juniper	5.99	3.5	March to June
Rose	5.99	2.5	May to September
Cherry	12.99	4.5	April to May
Mahonia	17.99	1.5	December to April
Callicarpa	11.99	1.5	September to December
Lilac	16.99	1.5	May to June

Nadim wants a bush or a small tree that

- costs less than £15
- has a maximum height of less than 3 metres
- flowers in at least 5 months of the year.

(a) Choose a bush or small tree for Nadim.

(2)

Write your answer in the box below.



Here is a list of other things Nadim wants to buy for his garden.

Item	Cost
Patio set	£60
Garden statue	£85
Heater	£59
Outdoor lights	£62
Barbecue	£123

Nadim has £200 to spend.

He wants to buy as many of the items as possible.

(b) Which items can Nadim afford to buy? (2)

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



**(Total for Question 9 is 4 marks)**

**TOTAL FOR PAPER IS 48 MARKS**



**Acknowledgements**

Chatsworth Summerhouse image – [www.diy.com/diy/jsp/bq](http://www.diy.com/diy/jsp/bq)

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