

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



17–21 March 2014

**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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**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: Tennis centre**

**Answer all questions in this section.**

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

- 1** Cameron wants to organise a tennis tournament.  
He wants to book 3 courts at the tennis centre for 2 hours.

It costs £18.50 to use a court for 1 hour.

Cameron thinks the total cost will be less than £120

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

**(3)**

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

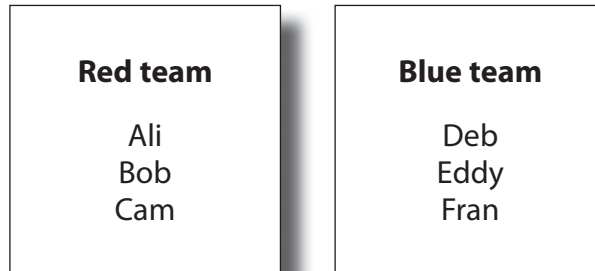


A large empty rectangular box for writing the answer.



There are 2 teams in the tennis tournament.  
Each team has 3 players.

Each person in the Red team plays one match against each person in the Blue team.



Cameron needs to make a list of all the matches.  
The first match is between Ali and Deb.

(b) Make a list of all the matches in the tournament. (3)

Write your list in the box below.

(Total for Question 1 is 6 marks)



- 2 Cameron has 2 children.  
He wants them to have tennis lessons.

The table shows information about courses at the tennis centre.

Day	Course	Time	Number of weeks	Weekly cost
Monday	Tots	4 – 5 pm	7	£4
Monday	Tots	5 – 6 pm	7	£4
Wednesday	Junior	5 – 6 pm	7	£6
Wednesday	Tots	4 – 5 pm	7	£4
Thursday	Junior	4 – 5 pm	7	£6
Saturday	Junior	9 – 10 am	7	£6
Saturday	Tots	10 – 11am	7	£4

One child needs to do the Tots course.  
The other child needs to do the Junior course.

The courses must be on the same day.  
They cannot go on a Saturday.

(a) Which day should Cameron choose?

(1)

Write your answer in the box below.

Cameron has £75 to spend on the tennis lessons.

(b) Is £75 enough to pay for both courses for 7 weeks?

(3)



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 2 is 4 marks)**



**3** Lisa is the manager of the tennis centre.

The table shows the number of children that applied for the last 5 tennis courses.

Number of children	35	49	62	57	52
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Lisa needs to run more courses if the mean average number of children is greater than 50

(a) Should Lisa run more courses?

(3)

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



The table shows some information about the opening hours of the tennis centre.

Opening hours	
Monday to Thursday	0600 to 2200
Friday	0600 to 2100
Saturday and Sunday	0900 to 1700

(b) How many hours is the tennis centre open for each week? (3)

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



**(Total for Question 3 is 6 marks)**



## SECTION B: Waterbeds

Answer all questions in this section.

Write your answers in the spaces provided.

- 4 Hamida is going to buy a waterbed.  
She has £900 to spend on everything she needs.

The tables show information about the costs of waterbeds and extras.

Mattress type	Waterbed size				Extras	
	Single	Double	King	Super King		
Free Flow	£575	£626	£646	£685	Heater	£85
Semi Stable	£595	£642	£665	£715	Liner	£17.50
Stable	£610	£651	£675	£729	Mattress cover	£43
Super Stable	£620	£661	£689	£739	Bottle of water conditioner	£8

Hamida wants to buy a king size waterbed with a semi stable mattress.  
She is also going to buy a heater, a liner, a mattress cover, and 2 bottles of water conditioner.

(a) Is the total cost less than £900?

(3)

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





Hamida adds conditioner to her waterbed to keep the water fresh.  
The waterbed holds 400 litres of water.

She knows she must use 30 ml of conditioner for every 100 litres of water.  
She must add the conditioner every 6 months.

Hamida thinks a 250 ml bottle of conditioner is enough for a year.

(b) Is Hamida correct?

(3)

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

**(Total for Question 4 is 6 marks)**



5 Blake works for a waterbed company.

He has a list of jobs for Friday.

Customer	Job	Time allowed	Time for job
Mr Smith	service waterbed	30 minutes	any time
Mrs Ahmed	replace heater	15 minutes	after 2pm
Ms Hall	deliver and set up waterbed	2 hours	morning
Mr Jones	drain and refill mattress	1 hour 15 minutes	afternoon
Miss Li	repair waterbed	1 hour	any time

Blake is going to

- start his first job at 9am
- allow 30 minutes travelling time between each job
- have a 30 minute break for lunch
- finish the last job by 5pm.

(a) Make a time plan for Blake.  
Show the start time and the finish time for each job.

(5)



Write your time plan in the box below.



The waterbed company sells pillows.

Pillows  
Normal price £24 each  
15% discount

(b) How much is the discount on each pillow? (2)

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



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

(Total for Question 5 is 7 marks)



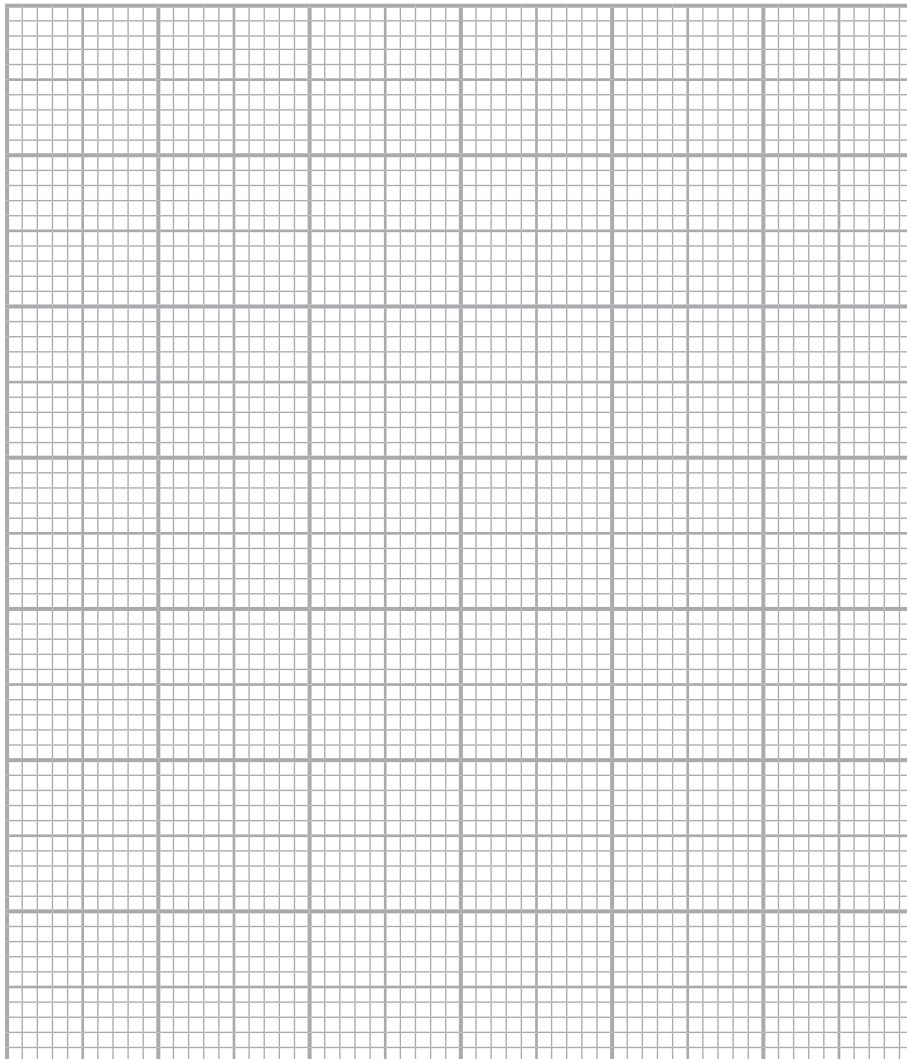
- 6 Dean is on work experience at the waterbed company.  
He has to write a report.  
He finds this information about waterbed sales in 2013.

	Spring	Summer	Autumn	Winter
Number of beds sold	57	32	52	63

Dean wants to display this information in his report.

Draw a graph or chart for Dean.

(3)



(Total for Question 6 is 3 marks)

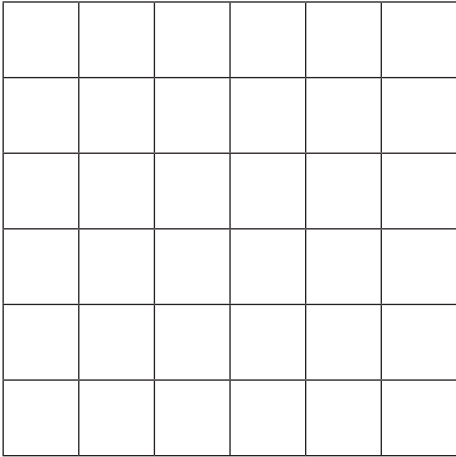


**SECTION C: Gemma's office**

**Answer all questions in this section.**

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

- 7** Gemma is going to change one room in her flat into an office. She wants to cover the floor with carpet tiles. The diagram shows a plan of the carpet tiles.



Key:  1 carpet tile

Each carpet tile costs £4.50

Gemma thinks the carpet tiles will cost £153 in total.

- (a) Is Gemma 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 to question 7(a).



Gemma is going to put a desk in the office.

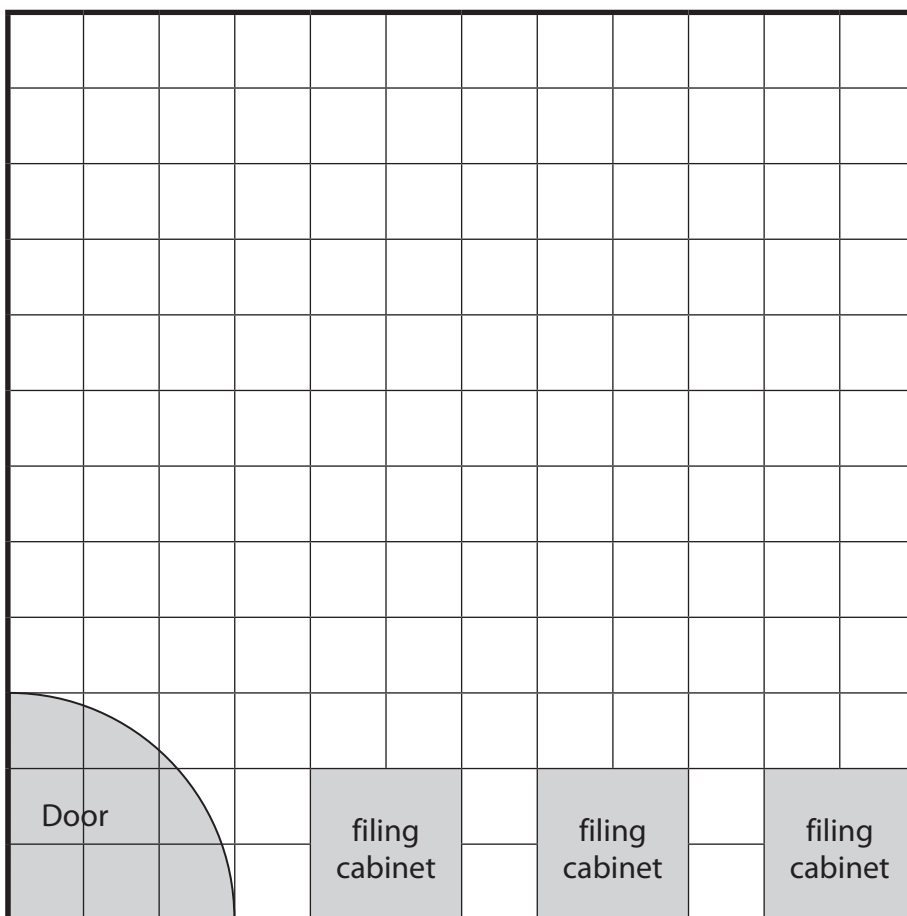
The desk

- needs a rectangular floor space 150 cm by 75 cm
- must have one side against a wall.

Gemma draws a plan of the floor on a grid.

(b) Draw the desk on the plan.  
Remember to use the key.

(2)



Key: 1 square on the plan is 25 cm by 25 cm on the floor  
— Wall

(Total for Question 7 is 5 marks)



- 8 Gemma wants wallpaper for one wall in the office.  
She asks Ashraf for a quote.

Ashraf needs to work out how much wallpaper to use.

The wall is 3 m wide.

The wallpaper Gemma likes is 60 cm wide.

First Ashraf needs to work out how many times the wallpaper fits along the wall.



(a) How many times does the wallpaper fit along the wall?

(3)

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



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





Ashraf uses this rule to work out his quote.

$$\text{Charge} = \text{£}32 \text{ per hour plus } \text{£}40 \text{ for materials}$$

Ashraf knows he needs 4 hours to wallpaper the wall.

(b) How much should Ashraf charge?  
Show a check of your answer.

(3)

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



Use the box below to check your answer.

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



9 Gemma is going to buy a new computer for the office.

She sees the same type of computer on 3 different websites.

**Cushen's Computers**

Full price £849

Now 50% of the full price

**Power House**

Normal price £1182.99

Now only  $\frac{1}{3}$  of the normal price

**Preston Computers**

Deposit £50

and

12 payments of £28

Gemma has a budget of £400

Which websites can Gemma afford to buy the computer from?

(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 9 is 5 marks)**

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**TOTAL FOR PAPER IS 48 MARKS**



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