

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



20 – 24 July 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 ►

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PEARSON

SECTION A: Fitness centre

Answer all questions in this section.

Write your answers in the spaces provided.

- 1 Jenny wants to join her local fitness centre.

She sees this offer.

Membership for one year £475

Join today and save 5%

Jenny joins today.

She thinks she will save more than £25

Is Jenny correct?

Show why you think this.

(2)

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



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(Total for Question 1 is 2 marks)

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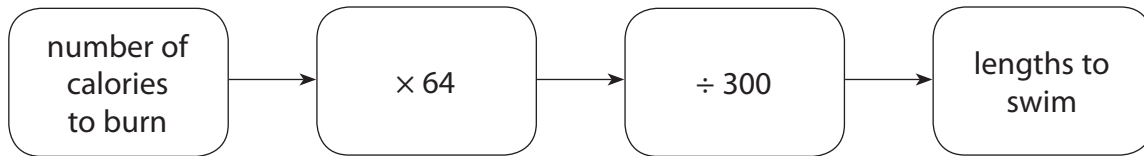
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- 2 Jenny goes swimming at the fitness centre to burn calories. She uses this rule to work out how many lengths of the pool she needs to swim.



Jenny wants to burn 350 calories.

- (a) Show that Jenny needs to swim 75 lengths to burn 350 calories.

(3)

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



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Jenny also uses an exercise bike at the fitness centre.
She wants to work out how many calories she will use.

She knows that when she cycles 500 m at a steady pace she burns 18 calories.

On Friday Jenny cycles 3 km at this pace.
She thinks she will burn more than 100 calories.

(b) Is Jenny correct?
Show why you think this.

(4)

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



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(Total for Question 2 is 7 marks)

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3 Jenny wants to buy 2 T-shirts and a water bottle.
She finds these prices.

Fitness centre
water bottle £3.50 each
T-shirts £9.95 each

Local shop
water bottle £3.50 each
Special offer
buy 2 T-shirts for £21
get a water bottle for $\frac{1}{2}$ price

Jenny wants to pay the cheapest price.

(a) Where should Jenny buy 2 T-shirts and a water bottle?

(4)

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



Large empty box for showing the solution.



Jenny is going to the fitness centre.
She wants to meet a friend at 8 pm.

Jenny plans to

- use the gym (45 minutes)
- go for a swim (20 minutes)
- use the steam room (15 minutes)
- have a shower and get ready (30 minutes)
- drive to meet her friend (20 minutes).

Jenny will arrive at the fitness centre at 5:30 pm.

(b) Will Jenny have enough time to do all the activities and meet her friend at 8 pm?

(3)

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(Total for Question 3 is 7 marks)

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SECTION B: Raising money for charity

Answer all questions in this section.

Write your answers in the spaces provided.

- 4 Four apprentices want to raise £200 for charity.

Three of the apprentices raise these amounts.

Name	Amount raised
Harry	£40.60
Leanne	£81.70
Sanjay	£32.50

Sean is going to run around the playing field.
He is going to get £5.70 for each lap.

Sean thinks he needs to run 8 laps to raise the rest of the money.

Is Sean correct?
Show why you think this.

You must show a check of your working.

(5)

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



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Use the box below to show your check.

(Total for Question 4 is 5 marks)



- 5 Marya also wants to raise money for a charity. She wants to organise a charity dinner.

She needs to know the average number of people who come to charity dinners in her town.

The table shows the number of people who came to dinners for different charities in the town last year.

Charity	Number of people
Animal welfare	39
Hospice care	179
Older people	72
Nature trust	51
Youth club	122

- (a) What is the mean average number of people who came to charity dinners in the town last year?

(2)

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



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Marya plans a charity dinner.
She needs to know the menu choices for each table at the dinner.

People can have

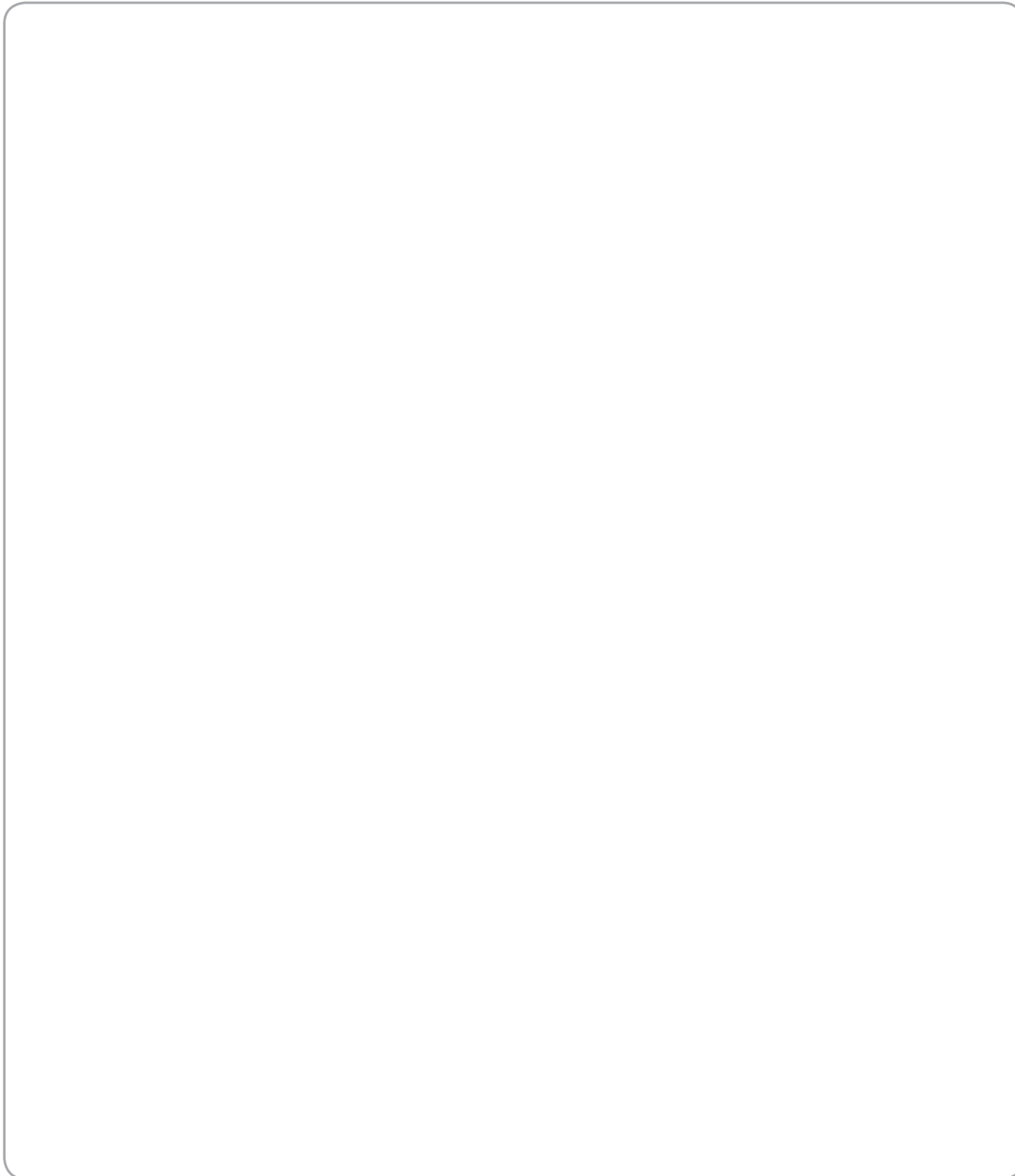
- salmon or pate
- lamb or risotto
- cheese or pavlova.

Marya wants to put the choices from each table on one sheet.
There are 8 people on each table.

(b) Design a data collection sheet for Marya to use.

(3)

Use the box below to show your data collection sheet.



Marya works out how many tables she will need for the dinner.

- 12 people can sit at a rectangular table.
There are 3 rectangular tables.
- 8 people can sit at a circular table.
There are 15 circular tables.

Marya knows there are going to be 126 people at the dinner.

(c) How many of each kind of table should Marya use?

(3)

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



(Total for Question 5 is 8 marks)

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6 Garcia and some friends hire a limo to take them to the charity dinner.

The limo takes 16 of them to the dinner.
It costs £375 to hire the limo.

Garcia and his friends each give the driver a tip of £2

Garcia thinks it is going to cost him £25 in total.

Is Garcia correct?
Show why you think this.

(3)

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



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(Total for Question 6 is 3 marks)



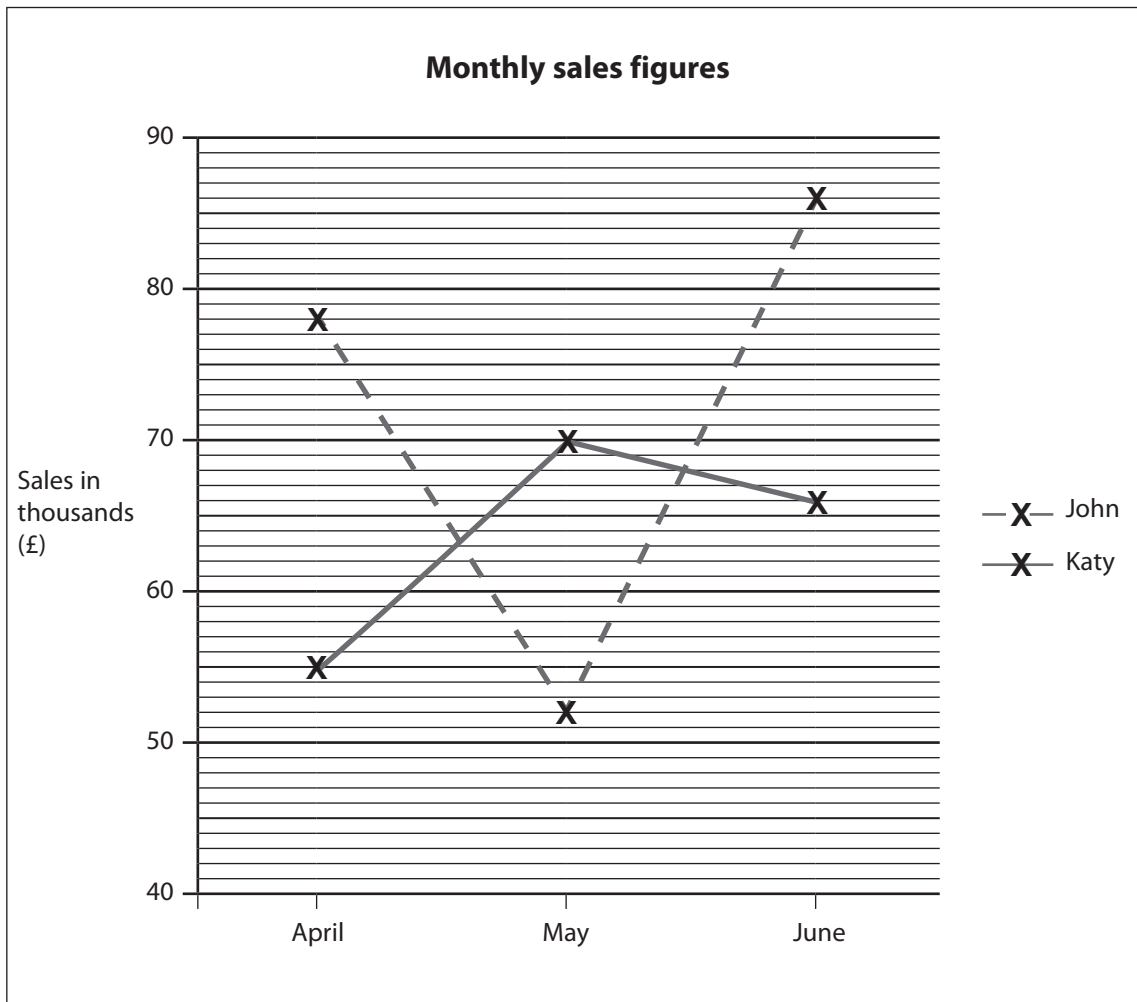
SECTION C: Car sales

Answer all questions in this section.

Write your answers in the spaces provided.

7 Naveed is the owner of a car sales company.

He draws this graph to show the monthly sales figures for John and Katy.



The total sales figures for John are greater than the total sales figures for Katy for these three months.

How much greater are the total sales figures for John?

(5)

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(Total for Question 7 is 5 marks)

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8 Naveed asks Katy to take a car to a customer.

Katy needs to drive the car 125 miles.
She thinks she will drive 50 miles in each hour.

How much time will Katy need to drive the car 125 miles?

(2)

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



(Total for Question 8 is 2 marks)

9 Naveed has some land in another town.

He asks John to plan a new branch for the business on the land.

John thinks he needs to hire a digger to clear some of this land.

He finds out how much it costs to hire a digger.

Digger hire

£60

plus

Mon-Fri £42 for each day

Sat-Sun £55 for each day

John thinks he needs to hire the digger starting on Saturday 8th August and finishing on Sunday 16th August.

(a) How much will it cost John in total to hire the digger?

(4)

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John wants to decide where to display the cars at the new branch.

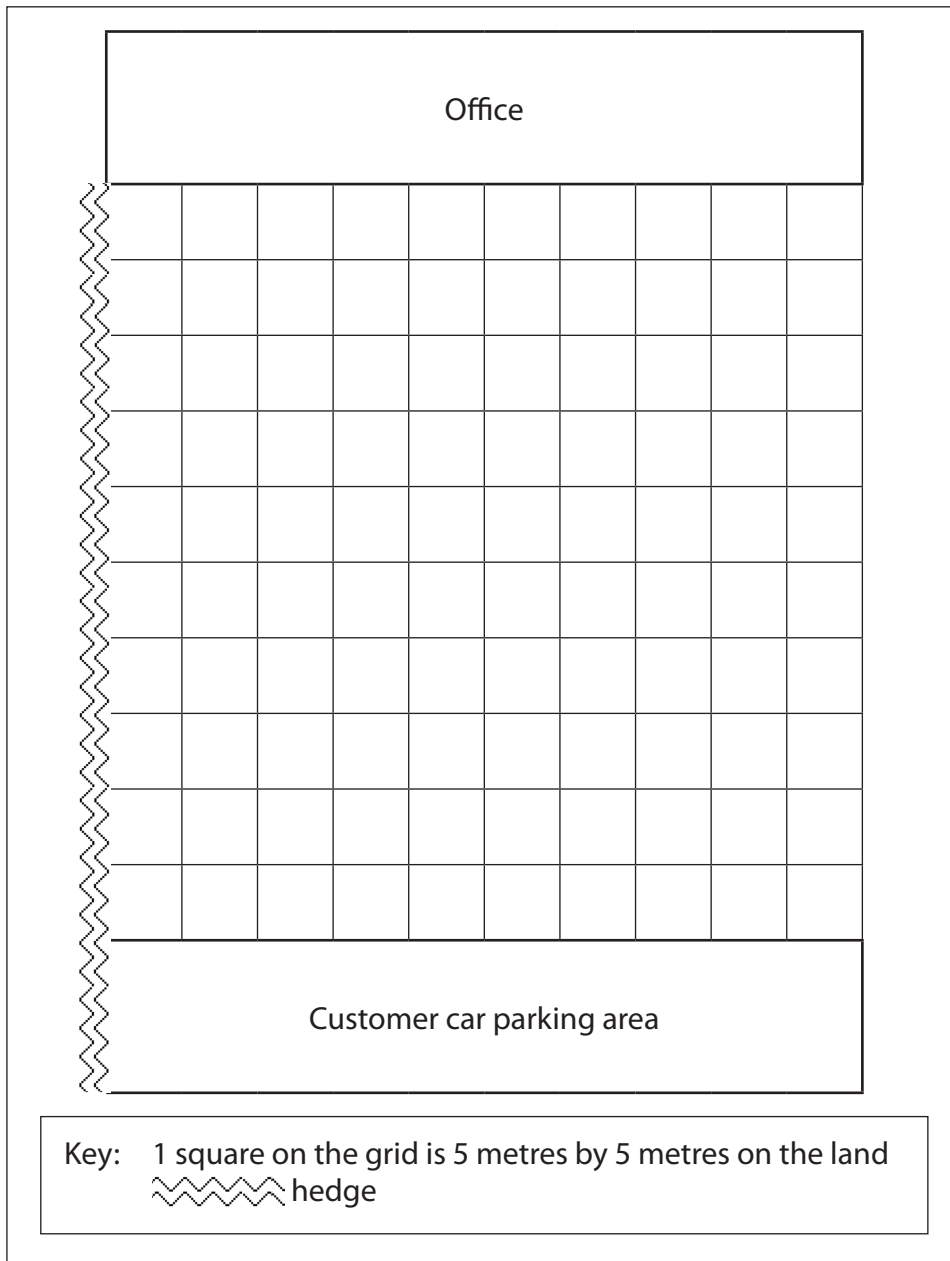
The space for the car display needs to be

- 5 metres from the office
- 15 metres from the hedge
- 10 metres from the customer parking area.

John draws a plan on a grid.

(b) Show the space for the car display on the grid.

(2)



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John needs to put fence around another piece of land.
This piece of land is rectangular 55 m by 70 m.

Naveed gives John a budget of £10 000 to buy fencing.
John sees some fencing that costs £45 for each metre.

(c) Is John's budget enough for this fencing?

(3)

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



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(Total for Question 9 is 9 marks)

TOTAL FOR PAPER IS 48 MARKS



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