

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



7 – 11 November 2016

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.*
- **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: Childminding business

Answer all questions in this section.

Write your answers in the spaces provided.

- 1** Laura is planning to set up in business as a childminder.

She wants to start work at 8 am.

She wants to work for 9 hours.

Laura thinks she will finish at 6 pm.

Is Laura correct?
Show why you think this.

(2)

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

(Total for Question 1 is 2 marks)

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- 2 Laura is going to buy a play house for the children.
The play house costs £200

She gets a 30% discount.

- (a) Work out 30% of £200
Show a check of your working. (3)

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

Show your check in the box below.



Laura is going to put the play house in her garden.

The play house needs

- a rectangular space 150 cm by 200 cm
- to be at least 1 m away from the sand pit.

Laura draws a plan of her garden on a grid.

(b) Draw a space for the play house on the grid.
Remember to use the key.

(3)

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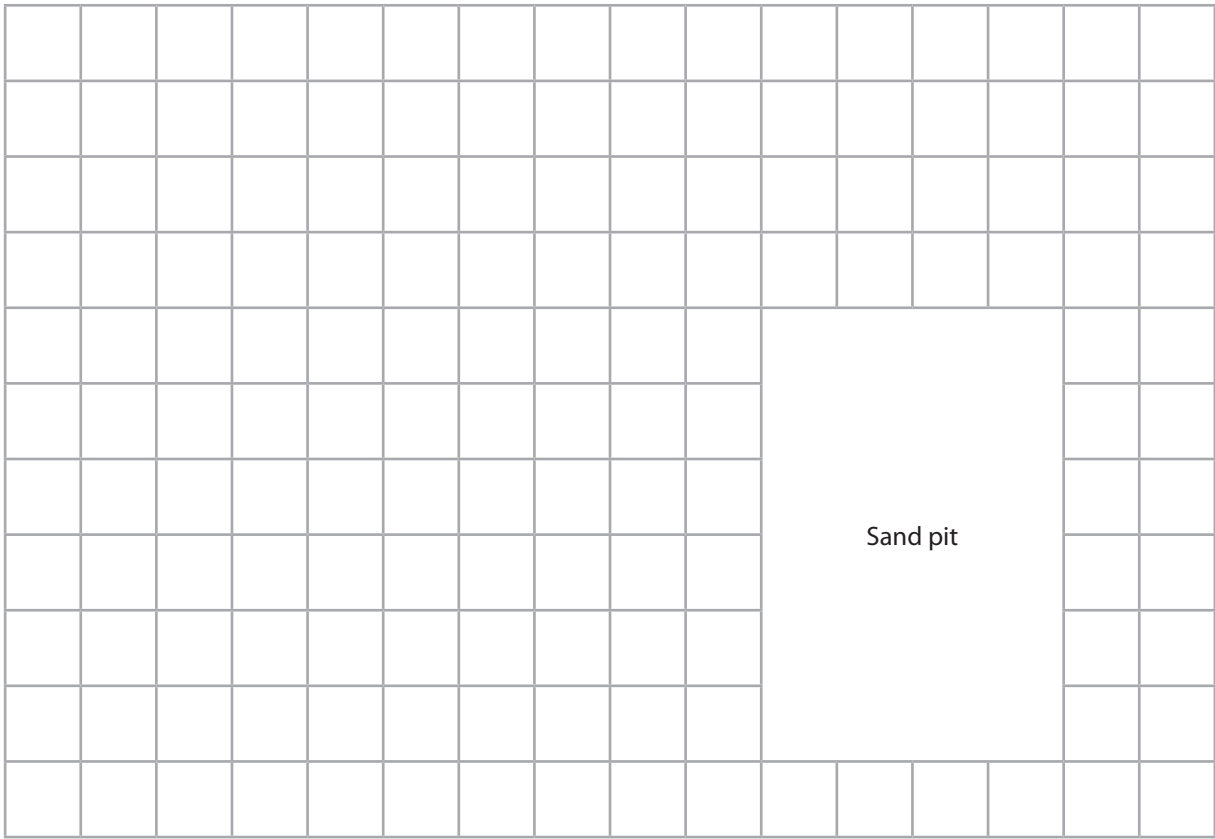
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Key 1 square on the grid is 25 cm by 25 cm in the garden

(Total for Question 2 is 6 marks)



3 Laura is going to put an advert for her business in the paper.

She wants the advert to go in the paper for 4 weeks.

She finds this offer.

Advert prices

£63.90 each week.
Pay for 3 weeks, get the 4th week for $\frac{1}{2}$ price.

Laura thinks it will cost less than £220 to put the advert in the paper for 4 weeks.

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

(4)

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

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Laura wants 1000 business cards.

She finds these offers from two websites.

Alpha Print
£6.75 for 200 cards

Supa Print
£7.50 for 250 cards

Laura wants to spend as little money as possible.

(b) Which website should Laura use?

(4)

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

Empty box for showing the solution to the problem.

(Total for Question 3 is 8 marks)



SECTION B: Exercise

Answer all questions in this section.

Write your answers in the spaces provided.

- 4 George and Sam are going to run in a marathon. They want to lose weight and exercise more.

George weighs himself every week for six weeks.

Week	1	2	3	4	5	6
Weight in pounds	228	225	220	220	215	216

George starts to draw a graph to show this information.

(a) Complete the graph for George.

(3)

Use the graph paper and the scale on the opposite page.

(b) Write a comment about George's weight loss in these six weeks.

(1)

Write your comment in the box below.

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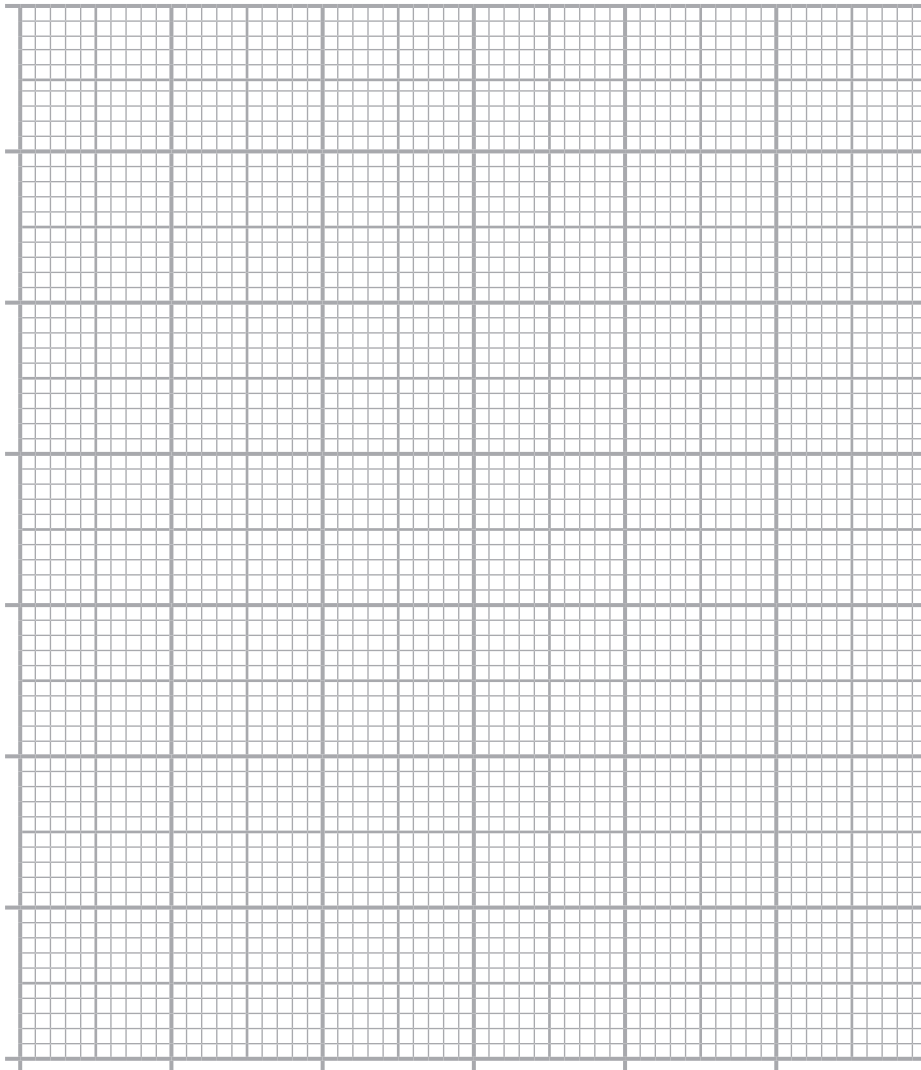
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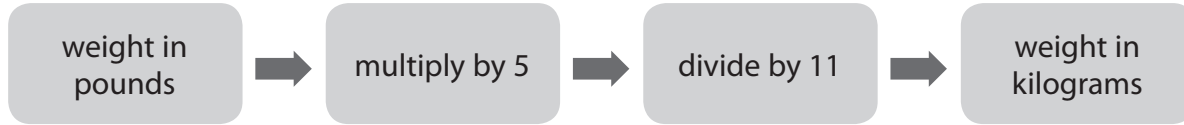
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P 5 2 5 3 1 A 0 9 2 0

George now weighs 209 pounds.
He wants to weigh less than 90 kg.

George uses this rule to change pounds into kilograms.



(c) Does George now weigh less than 90 kg?

(3)

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

(Total for Question 4 is 7 marks)

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5 George and Sam are training for the marathon.

George records the total distance he runs each week for 6 weeks.

Week	1	2	3	4	5	6
Distance in km	25	32	39	53	59	35

Sam runs a mean distance of 38 km each week.

George thinks the mean distance he runs each week is greater than Sam's.

(a) Is George correct?

Show a check of your working.

(4)

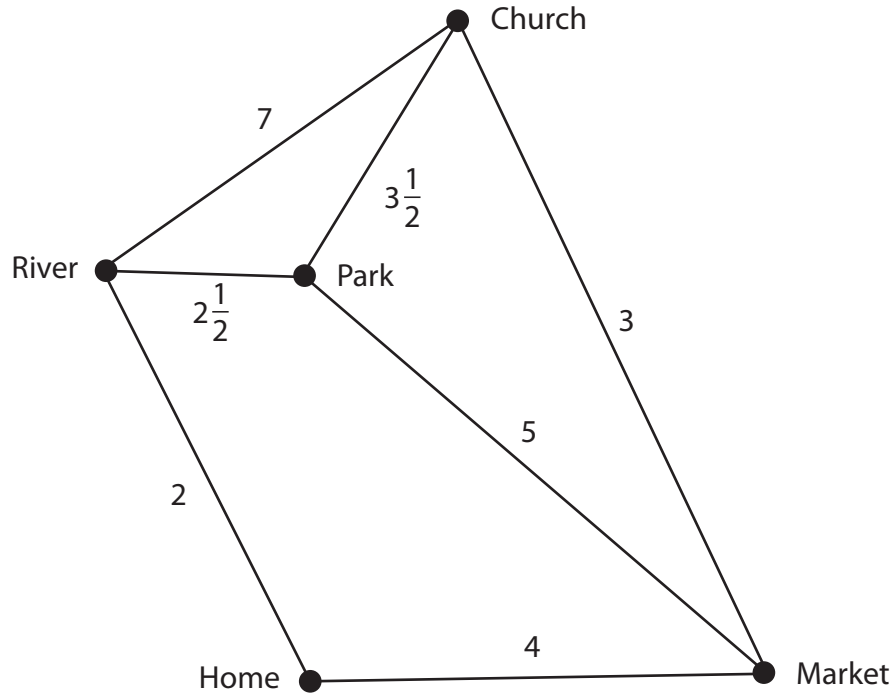
Use the box below to show clearly how you get your answer.

Show your check in the box below.



Sam wants to go on a run.
He uses this sketch to plan his run.

The distances are shown in miles.



Sam wants to

- start his run from home
- run through the park to the church
- finish at home.

He wants to run the shortest total distance.

Sam knows his average running speed is 6 miles per hour.
He starts running at 9 30 am.

(b) What time will Sam get home if he runs the shortest total distance?

(5)

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



(Total for Question 5 is 9 marks)



SECTION C: Restaurant work

Answer all questions in this section.

Write your answers in the spaces provided.

- 6** Mahir is the cleaner at The Palace restaurant.
He is going to clean the floor with a mixture of floor cleaner and water.

Mahir knows

- to use 30 ml of floor cleaner for every 1 litre of water
- 1 capful of floor cleaner is 20 ml.

Mahir puts 4 litres of water in a bucket.
He thinks he needs to add 5 capfuls of floor cleaner to the water.

Is Mahir correct?
Show why you think this.

(3)

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

(Total for Question 6 is 3 marks)

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- 7 Mr Khan is the manager of The Palace.
He records the number of hours each person worked last week.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Tom	4.5	day off	4.5	day off	4	4.5	5
Des	day off	4.5	4	4.5	5	5	day off
Jenny	5	4.5	day off	5	4.5	4.5	5
Lee	4	4.5	5	4.5	day off	4	5
Mahir	4	day off	5	4.5	day off	4	4.5
Liz	day off	5	5	4.5	4.5	day off	4

Mahir is paid an hourly rate of £7.85

- (a) How much is Mahir paid for working last week?
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.



Anne also works in the restaurant.
She gets a wage of £240 each week.

Anne owes her mum £1200

She says

“I will pay my mum back in 26 weeks if I give her 25% of my wage each week.”

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

(3)

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

(Total for Question 7 is 7 marks)

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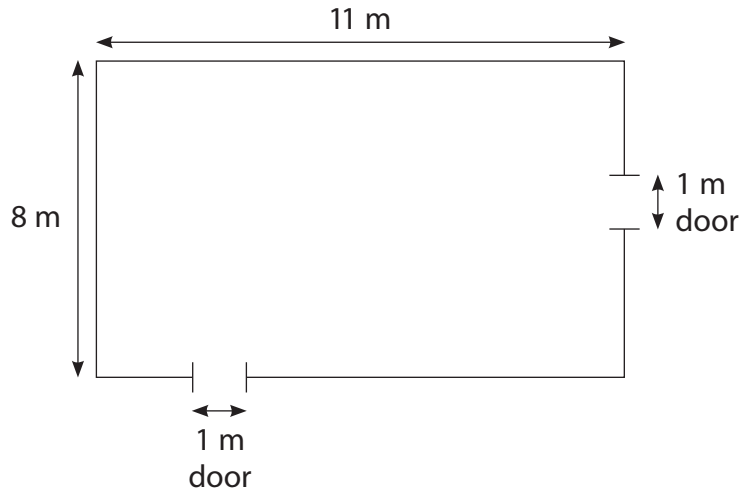
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8 Mr Khan wants to make some changes to the dining room.

The dining room is rectangular 11 m by 8 m.
Here is a plan of the dining room.



Mr Khan wants to fit

- a new carpet
- new skirting boards around the perimeter of the dining room.

He will not put skirting boards in the spaces for the doors.
Mr Khan knows he can cut and join skirting boards.

Mr Khan finds these prices.

Carpet £5.75 for each
square metre

Pack of skirting boards
£17.95
Total length in 1 pack is 9 metres

How much will it cost to buy the carpet and skirting boards for the dining room?

(6)

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

(Total for Question 8 is 6 marks)

TOTAL FOR PAPER IS 48 MARKS



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