Write your name here

Surname		Other names	

Pearson Edexcel
Functional Skills

Centre Number

Candidate Number

Mathematics
Level 1

12 – 16 October 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.*
- **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 ▶

PEARSON

Answer all questions in this section.

Write your answers in the spaces provided.

1 John plans a journey to visit his sister in Newcastle.
He wants to fill up the bottle for the windscreen washer before he starts the journey.

John mixes 1 part screen wash with 5 parts water.

He uses 125 ml of screen wash.

(a) How much water should John use?

(2)

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

John wants to arrive at his sister's house in time for lunch at 1:30 pm

He plans the journey.
It takes 5 hours to drive to Newcastle.
John also needs 10 minutes to fill up with fuel.
He is going to stop for 45 minutes for breakfast at a service station.

(b) What is the latest time John can leave home to arrive by 1:30 pm?

(3)

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

(Total for Question 1 is 5 marks)

2 John wants to save money on fuel.
His friend tells him

You can save $\frac{1}{3}$ of the cost of your fuel by driving efficiently.

John spends £72 each week on fuel for his car.
He thinks driving efficiently can save him £100 every 4 weeks.

(a) Is John correct?
   Show why you think this.
   Show how you have checked your work.

(4)

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

Use the box below to show clearly how you have checked your work.

☑

P 4 5 2 6 0 A 0 4 2 0

John wants to change his car.

He is going to buy a second hand car.
The salesman says John can pay the cash price or use a payment plan.

The cash price of the car is £8000

Payment plan

Pay a deposit now +
36 monthly payments

The salesman says

'The deposit for this car is £1400 and the monthly payments are £200'

John wants to know if the payment plan is cheaper than the cash price.

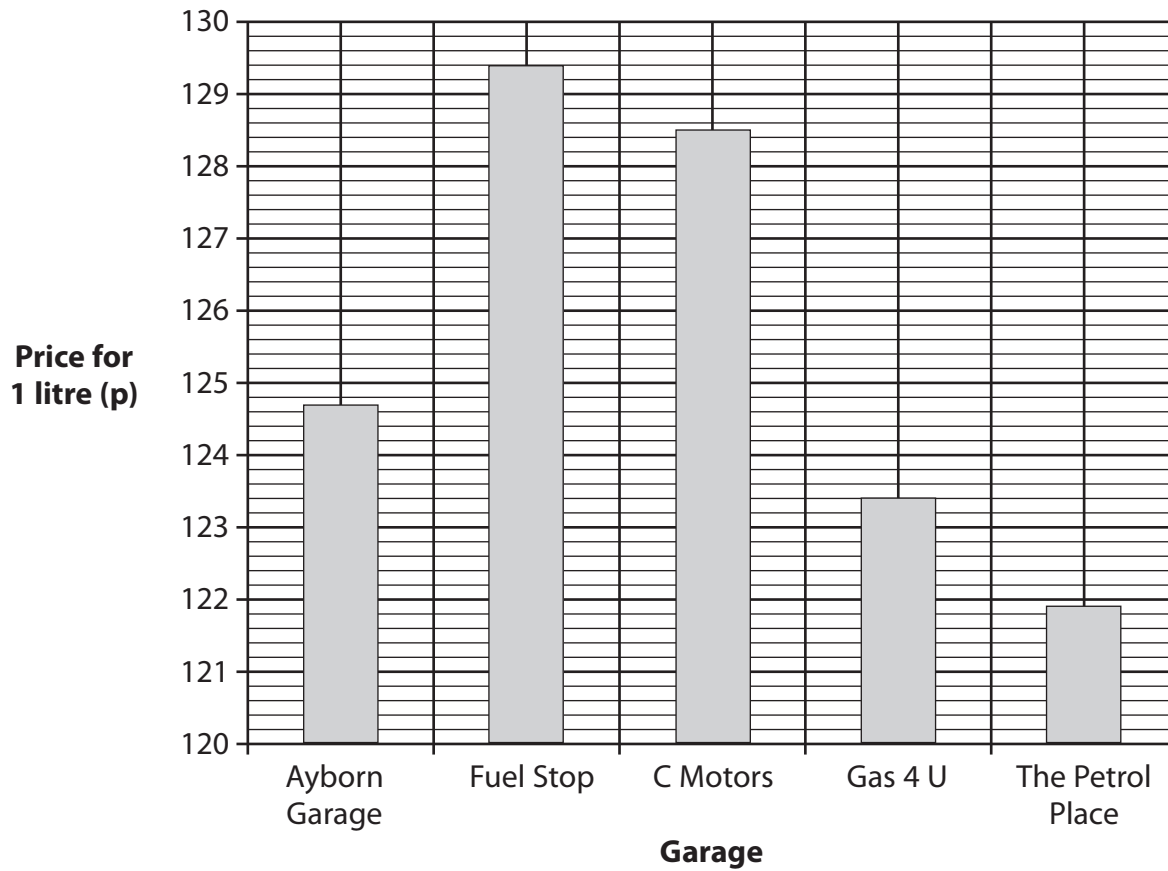(b) Is the payment plan cheaper than the cash price?

(3)

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

(Total for Question 2 is 7 marks)

3 John finds this graph showing the price of 1 litre of fuel at 5 local garages.

Price for 1 litre (p)

The UK average price for 1 litre of fuel is 126.57 p.

John wants to know if the mean price of fuel at his local garages is above the UK average price.

Compare the mean price at the 5 local garages with the UK average price.

(4)

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

(Total for Question 3 is 4 marks)

P 4 5 2 6 0 A 0 7 2 0

SECTION B: Hillside Players

Answer all questions in this section.

Write your answers in the spaces provided.

4 Jessica is the secretary of the Hillside Players.
They are going to put on a show at the village hall.
Jessica needs to arrange 4 dates in October for rehearsals.

October						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Jessica makes notes about when people can come to rehearsals.
*   Dawn – not weekends.
*   Kara – on holiday, can't come from October 5th to October 12th inclusive.
*   Pascal – not Wednesdays or Thursdays.
*   Ron – only Tuesdays and Fridays.

These 4 people need to be at every rehearsal.

They don't want more than 1 rehearsal in any week.

(a) Choose 4 dates for rehearsals in October.
    Remember to check your answer.

(2)

October						
Sun	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**	**Sat**
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Write your answer in the box below.

Jessica finds this information about booking the village hall for the show.

Booking type	Cost for 1 day
Private party	£90.00
Children's party	£45.00
Hall and stage	£37.00
Stage lighting	£32.00

Jessica needs to book

· Hall and stage
· Stage lighting.

She needs to use the hall for 6 days.

Jessica has £450 to cover the booking costs.

(b) Is £450 enough to cover the costs of booking the hall?
Show how you have checked your working. **(4)**

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

Use the box below to show how you have checked your working.

(Total for Question 4 is 6 marks)

P 4 5 2 6 0 A 0 9 2 0

5 Jessica needs to work out how many seats can fit in the village hall.
She has a diagram of the hall.

Aisle	
7 m	Stage
Aisle	

Diagram **not** accurately drawn
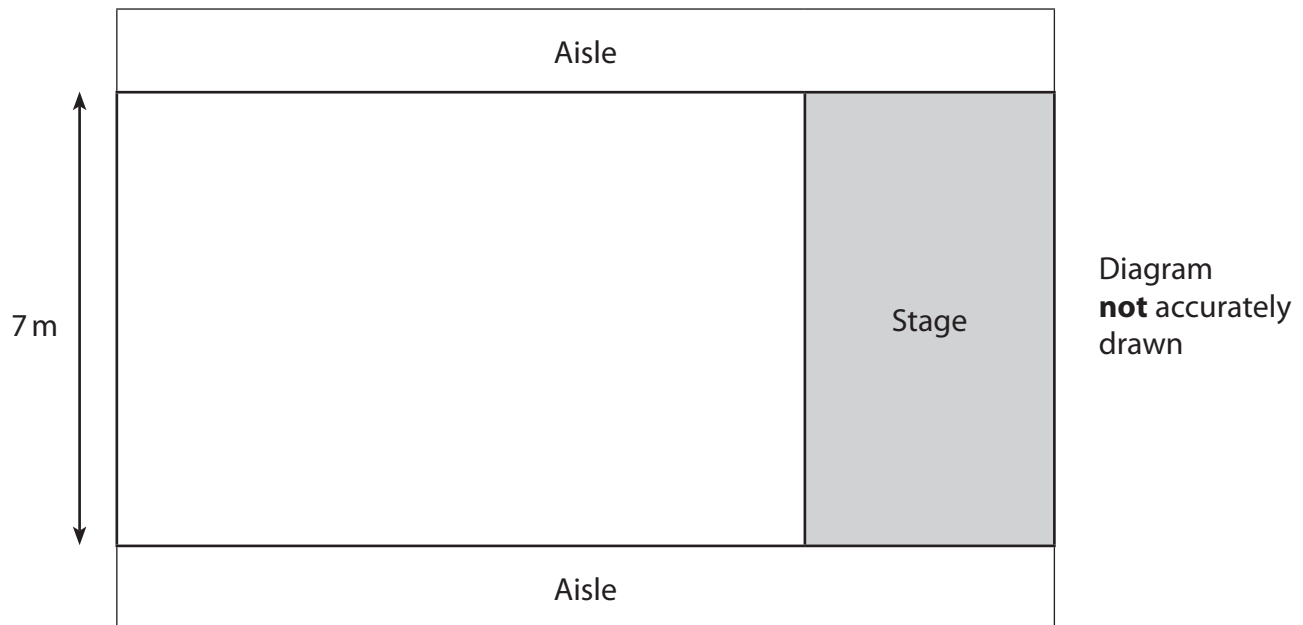
Jessica knows they can fit 16 rows of seats in the hall.
Each seat is 500 mm wide.
The space between the aisles is 7 m.

Jessica thinks they can fit 250 seats in the hall.

(a) Is it possible to fit 250 seats in the hall?

(4)

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

The Hillside Players sell 1160 tickets in total for all the shows.

<div style="border:1px solid; padding:1em; text-align:center;">

Hillside Players

Show tickets

Adults £6
Children half price

</div>

290 are adult tickets.
The rest are children's tickets.

(b) How much money do they make from selling the 1160 tickets?

(6)

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

(Total for Question 5 is 10 marks)

SECTION C: New bathroom

Answer all questions in this section.

Write your answers in the spaces provided.

6 Anna wants a new bathroom.

She wants to buy a new toilet, basin and bath.
She wants them all from the same range.

Anna finds these prices.

	Bathroom range		
	Babette	**Juliet**	**Rosalind**
Toilet	£323.45	£202	£243.78
Basin	£184	£253.63	£247.52
Bath	£267.95	£242.57	£227

Anna wants to pay as little as possible for the bathroom range.

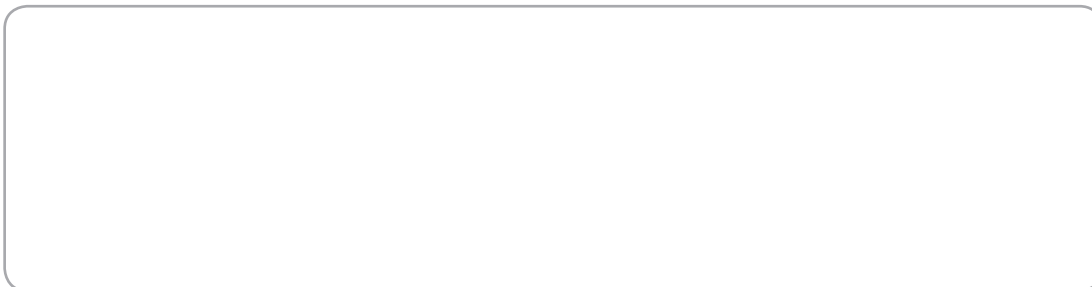How much will the new bathroom range cost Anna?
Show how you have checked your working. **(4)**

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

Show how you have checked your working in the box below.

☑

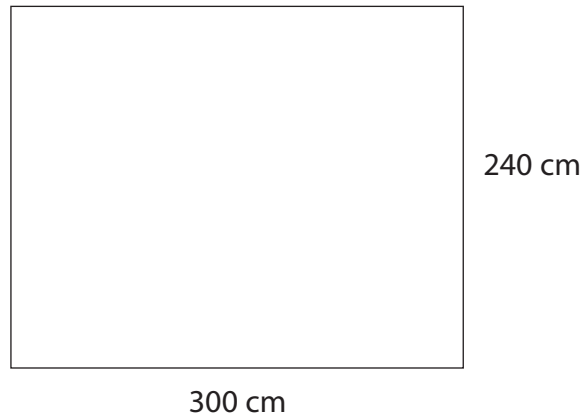**(Total for Question 6 is 4 marks)**

7 Anna wants to tile a wall in her bathroom.

The wall is 300 cm wide and 240 cm high.

240 cm

300 cm

The tiles Anna likes are 60 cm by 30 cm.

The tiles are sold in boxes.
Each box contains 6 tiles.

Anna wants enough tiles to cover the wall.

(a) How many boxes of tiles does Anna need?

(6)

Use the box below to show clearly how you get your answer.
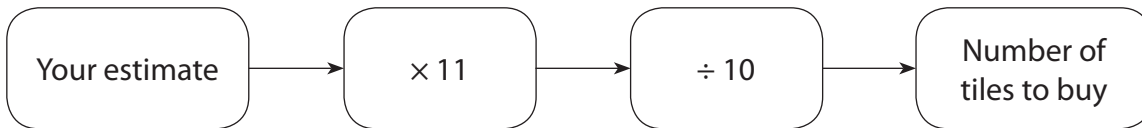
P 4 5 2 6 0 A 0 1 7 2 0

Anna wants to buy tiles for her bathroom floor.

She estimates that she needs 32 tiles.

The shop assistant says

'Buy more tiles in case you need extra to cut.'

He gives her this rule.

| Your estimate | → | × 11 | → | ÷ 10 | → | Number of tiles to buy |

Anna thinks the rule shows she needs to buy 40 tiles.

(b) Is Anna correct?
Show why you think this.
(2)

Use the box below to show clearly how you get your answer.
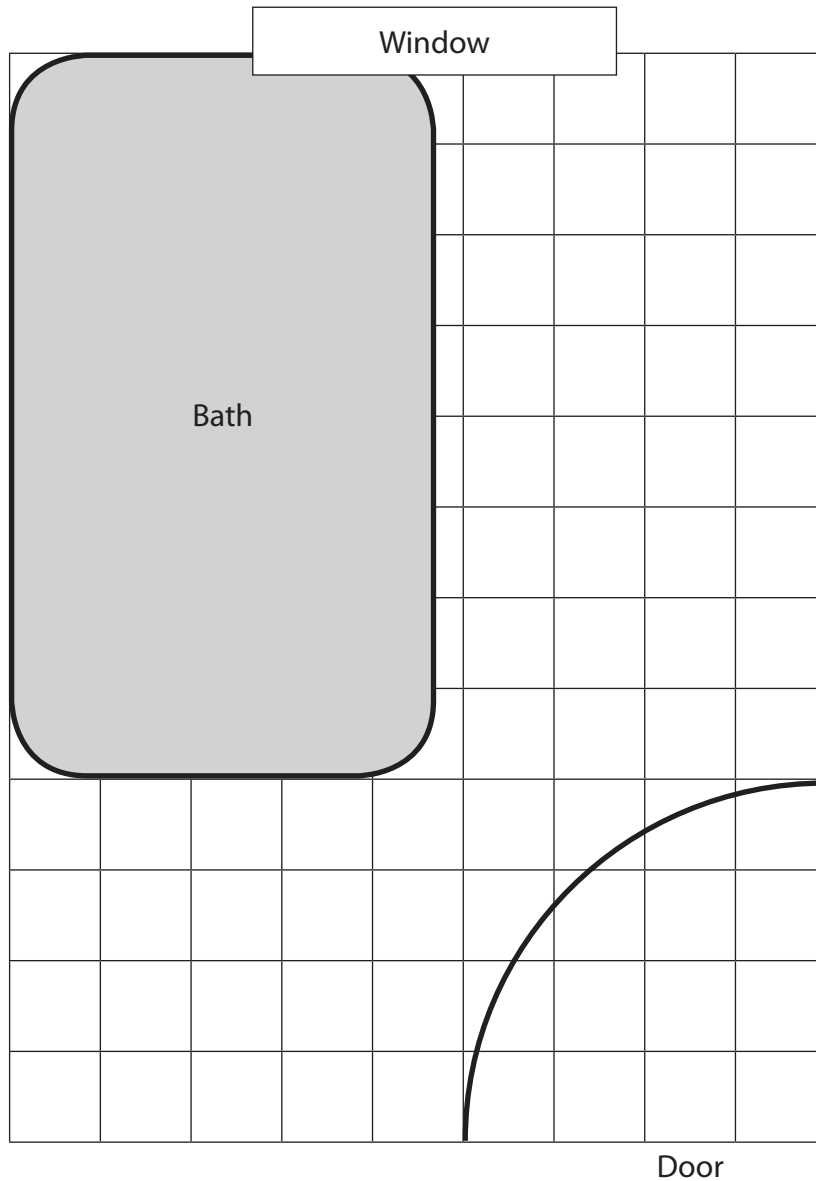
(Total for Question 7 is 8 marks)

8 Anna needs to work out where to put the toilet and the basin in her bathroom.

The toilet must be in a corner of the room and not in front of a window.
It needs a rectangular floor space 50 cm by 125 cm.

The basin must be against a wall.
It needs a space 75 cm square.

Anna draws a plan of the bathroom on a grid.

> Draw and label the space for the toilet and the space for the basin on the grid.
> Remember to use the key.
> **(4)**

Key: 1 square on the grid is 25 cm by 25 cm in the bathroom

(Total for Question 8 is 4 marks)

TOTAL FOR PAPER = 48 MARKS

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