Write your name here

Surname	Other names

Pearson Edexcel Functional Skills

Centre Number | | | | | |

Candidate Number | | | | |

Mathematics

Level 1

19 – 23 March 2018
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 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: The beehive

Answer all questions in this section.

Write your answers in the spaces provided.

1 Alia keeps bees in a beehive.

She needs to check the beehive on a day when
- the wind speed is less than 15 km/h
- the temperature is greater than 10 °C.

Alia has this weather forecast.

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
wind speed (km/h)	26	19	16	13	19	15	13
temperature (°C)	9	10	11	14	9	8	8

(a) On which day should Alia check the beehive?

(2)

Write your answer in the box below.

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There are 6000 bees in the beehive.
15% of the bees in the beehive are male bees.

Alia thinks there are 900 male bees in the beehive.

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

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

(Total for Question 1 is 4 marks)

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2 Alia fills 5 jars with honey from the beehive.
She wants to know the mean weight of the honey in the 5 jars.

jar	**1**	**2**	**3**	**4**	**5**
weight of honey (g)	440	460	465	455	450

(a) Work out the mean weight of the honey in the 5 jars.
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.

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Alia also wants to know the range of the weight of the honey in the 5 jars.

jar	**1**	**2**	**3**	**4**	**5**
weight of honey (g)	440	460	465	455	450

(b) Work out the range of the weight of the honey in the 5 jars.

(2)

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

(Total for Question 2 is 6 marks)

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3 Alia wants to send a parcel to her friend.
The parcel is 2 jars of honey in a box.

Each jar of honey weighs 625 grams.
The empty box weighs 70 grams.

Alia finds the following prices for sending parcels.

	weight of parcel	
type of postage	**less than 1000 g**	**1000 g to 2000 g**
first class standard	£3.40	£5.50
second class standard	£2.82	£3.82
first class signed for	£4.40	£6.50
second class signed for	£2.90	£3.90

Alia wants to send the parcel first class standard.

How much will it cost to send this parcel using first class standard?

(2)

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

(Total for Question 3 is 2 marks)

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4 The beehive has wooden frames.
Each frame is made from 4 pieces of wood.

All corners of the frame are right angles.
The diagram shows the lengths of the sides of the frame.

Alia wants to make 2 new frames.
She has a 2.4 metre length of wood.
Alia thinks this will be enough to make the 2 frames.

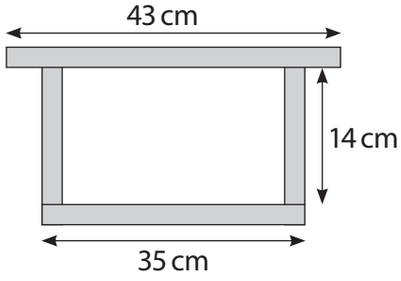

Diagram **not** accurately drawn

Is Alia correct?
Show why you think this. **(4)**

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

(Total for Question 4 is 4 marks)

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Section B: Beach office

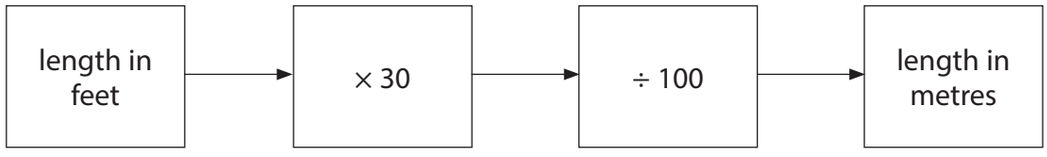
Answer all questions in this section.

Write your answers in the spaces provided.

5 Marta works at the beach office.
She needs to buy a new surfboard for the lifeguards.

The surfboard must be 6 feet in length.

Marta uses this formula to convert feet into metres.



What is 6 feet in metres?
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.

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(Total for Question 5 is 4 marks)

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6 Marta manages the rentals of beach huts.

There are 96 beach huts.
24 of these beach huts are available to rent.

Marta thinks that $\frac{1}{4}$ of the beach huts are available to rent.

Is Marta correct?
Show why you think this. **(2)**

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

(Total for Question 6 is 2 marks)

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7 The opening hours for the beach office change during the year.

These are the opening times for the beach office.

Peak season	
Monday to Sunday	9.30 am to 6.30 pm
Off-peak season	
Monday to Friday	9.30 am to 3.30 pm
Saturday and Sunday	closed

Marta wants to compare the number of hours the office is open each week for the two seasons.

(a) For how many more hours is the office open **each week** in the peak season than in the off-peak season? **(4)**

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

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Marta needs to cover the whole floor in 3 of the beach huts with tiles.

The floor in each beach hut is rectangular 400 cm by 200 cm.
Each tile is square 50 cm by 50 cm.

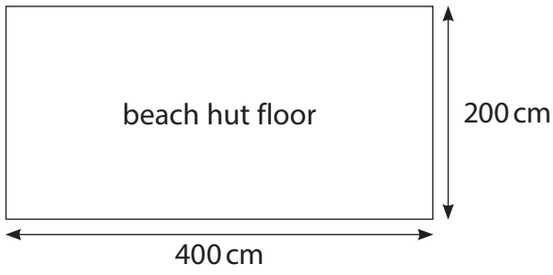

Diagram **not** accurately drawn

Each tile costs £8.99

Marta has £850 to spend on the tiles.

(b) Is £850 enough to buy all the tiles Marta needs?

(6)

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

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(Total for Question 7 is 10 marks)

Section C: At a cinema

Answer the questions in this section.

Write your answers in the spaces provided.

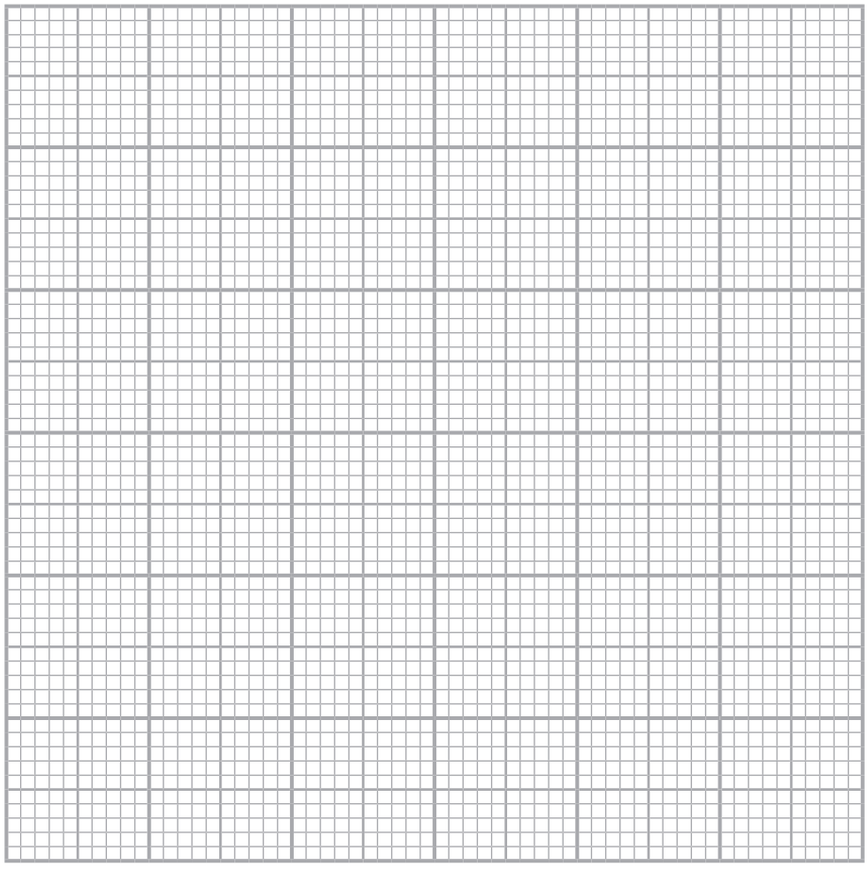
8 Teddy works at a cinema.
He sells frozen drinks in 4 different flavours.

Teddy wants to compare the number of sales of each flavour.
He has this information about the sales last week.

flavour	raspberry	cherry	lemon	orange
number of sales	195	80	155	110

(a) Draw a graph or chart to compare the number of sales of each flavour last week. **(3)**

Use the graph paper below to draw your graph or chart.



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Teddy has a machine to make fizzy drinks.
The machine uses 1 part syrup to 5 parts water to make each drink.

A medium drink is 500 ml.

Teddy has 7 litres of syrup for the machine.
He thinks this is enough syrup to make 85 medium drinks.

(b) Is Teddy correct?
Show why you think this. **(5)**

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

(Total for Question 8 is 8 marks)

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9 Reece goes to see a film at the cinema.
He wants to buy a large drink and a large popcorn.

Reece sees this price list and a special offer.

Price list

	small	medium	large
drink	£1.99	£2.99	£3.99
popcorn	£2.49	£3.49	£4.49

Special offer!

Get a large drink and a large popcorn for £7.50

(a) How much will Reece save using the special offer to buy his large drink and large popcorn?
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.

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Reece wants to know what time he will get to the bus stop after the film finishes.

The film
- starts at 3.30 pm
- lasts for 135 minutes.

It will take Reece 10 minutes to get to the bus stop from when the film finishes.

Reece thinks he will get to the bus stop at 5.50 pm.

(b) Is Reece correct?
Show why you think this. **(4)**

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

(Total for Question 9 is 8 marks)

TOTAL FOR PAPER IS 48 MARKS

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