Please check the examination details below before entering your candidate information

Candidate surname	Other names

Pearson Edexcel
Level 1/Level 2 GCSE (9–1)

Centre Number	Candidate Number

Mock Set 4 – Autumn 2018

(Time: 1 hour 30 minutes) | Paper Reference **1MA1/2F**

Mathematics

Paper 2 (Calculator)
Foundation Tier

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.

Total Marks

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.
- Answer **all** questions.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*
- You must **show all your working**.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- **Calculators may be used.**
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Information

- The total mark for this paper is 80
- The marks for **each** question are shown in brackets
  – *use this as a guide as to how much time to spend on each question.*

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

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S 5 9 7 2 7 A 0 1 2 0

Pearson

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Write 0.2 as a percentage.

.....%

(Total for Question 1 is 1 mark)

2 Write down two multiples of 8

..... , ...

(Total for Question 2 is 1 mark)

3 Rod **A** has length 12 cm.
Rod **B** has length 7 cm.

Write the length of rod **A** to the length of rod **B** as a ratio.

.....

(Total for Question 3 is 1 mark)

4 Work out $\frac{1}{7}$ of 35

.....

(Total for Question 4 is 1 mark)

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5 (a) In the space below, draw a straight line 90 mm long.

(1)

(b) In the space below, draw an angle of 120°.
Label the angle A.

(1)

(Total for Question 5 is 2 marks)

6 Millie thinks of a number.
She then doubles the number and adds 4
The result is 18

What number did Millie think of?

.....

(Total for Question 6 is 2 marks)

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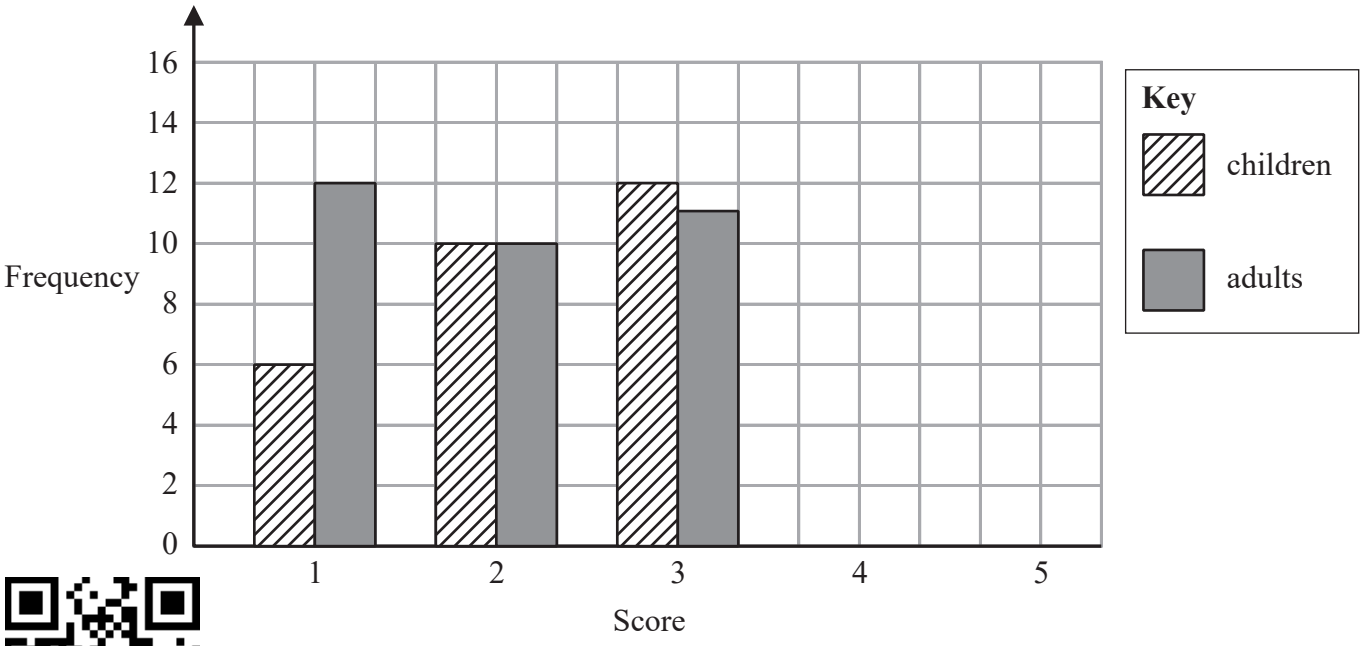
7 A group of children and a group of adults gave an app a score.

1 was the lowest possible score.
5 was the highest possible score.

The incomplete bar chart shows some information about the scores.



Score	Number of children	Number of adults
4	14	6
5	10	9

(a) Complete the bar chart for this information.

(2)

(b) Work out the total number of adults who gave the app a score.

.....

(2)

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(c) Compare the scores given by the children with the scores given by the adults.

1 .....

.....

2 .....

.....

(2)

(Total for Question 7 is 6 marks)

8 (a) Solve $4a = 12$

$a =$ .....

(1)

(b) Solve $3y + 7 = 22$

$y =$ .....

(2)

(Total for Question 8 is 3 marks)

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9 (a) Write the ratio 21 : 14 in its simplest form.

.....

(1)

There are some biscuits on a plate.

$\frac{1}{4}$ of the biscuits are chocolate.

The rest of the biscuits are plain.

(b) Write down the ratio of the number of chocolate biscuits to the number of plain biscuits.

.....

(1)

The ratio of the number of boys to the number of girls in a class is 12 : 13

(c) What percentage of the class are boys?

.....%

(2)

(Total for Question 9 is 4 marks)

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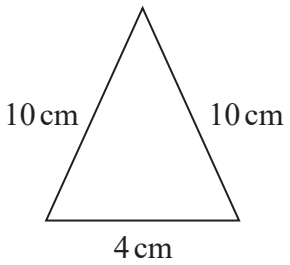
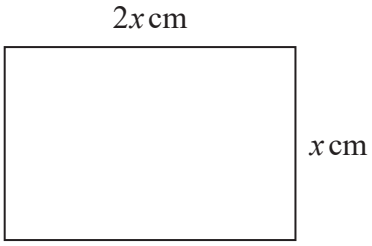
10 Here is a triangle and a rectangle.





The perimeter of the triangle is the same as the perimeter of the rectangle.

Work out the width and length of the rectangle.

width = ... cm

length = ... cm

(Total for Question 10 is 4 marks)

11 $W = 5p + t$

Work out the value of W when $p = 6.2$ and $t = -4$

$W =$ .....

(Total for Question 11 is 2 marks)

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12 Cameron writes down one letter from the word **HOUR**.
Then he writes down one number from **5**, **6** and **7**

(a) List all the possible combinations Cameron can write down.

.....

.....

.....

(2)

(b) What is the probability that Cameron writes down **T7**?

.....

(1)

(Total for Question 12 is 3 marks)

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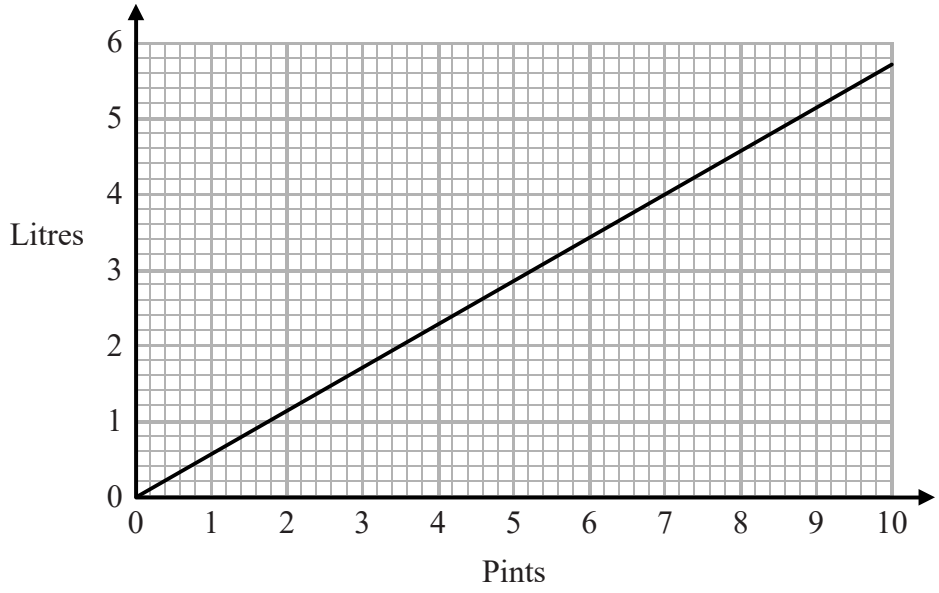
13 You can use this graph to change between pints and litres.



(a) Change 6 pints to litres.

..... litres

(1)

(b) Change 16 litres to pints.

..... pints

(2)

(c) (i) Work out the gradient of the line.

.....

(2)

(ii) What does the gradient of this line represent?

.....

(1)

(Total for Question 13 is 6 marks)

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14 Abi is going to buy ingredients to make 65 hot chocolate drinks.

She needs 12 g of chocolate powder and 5 marshmallows to make each drink.

Abi can buy

chocolate powder in 250 g jars at £2.99 per jar
marshmallows in bags of 120 marshmallows at £1.45 per bag

Work out the total cost of the chocolate powder and the marshmallows she needs to buy.

£.....

(Total for Question 14 is 4 marks)

15 Mika has to work out $\frac{5}{6} - \frac{5}{12}$

She writes $\frac{5}{6} - \frac{5}{12} =$

$\frac{7}{12} - \frac{5}{12}$

Correct the mistake Mika has made in her working.

.....

.....

(Total for Question 15 is 1 mark)

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16 Which is greater

30% of 30 or 28% of 32 ?

You must show your working.

(Total for Question 16 is 3 marks)

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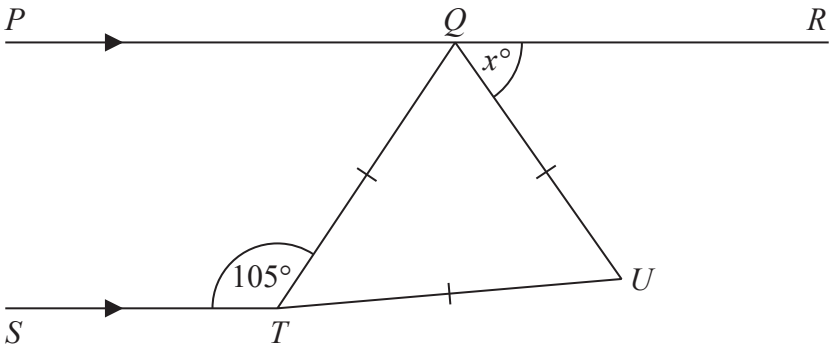
17



PQR is a straight line parallel to *ST*.
QUT is an equilateral triangle.

Angle *STQ* = 105°

Work out the value of *x*.
Give a reason for each stage of your working.

.....

(Total for Question 17 is 4 marks)

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18 Identical trainers are sold in London, in New York and in Dubrovnik.

The table shows the price of the trainers in each city.

London	New York	Dubrovnik
£100	$132	1000 kuna

The exchange rates are

£1 = $1.38 £1 = 8.42 kuna

Where are the trainers the best value for money, in London or in New York or in Dubrovnik?
You must show how you get your answer.

.....

(Total for Question 18 is 3 marks)

19 Divide 7560 in the ratio 4 : 5

..... , ...

(Total for Question 19 is 2 marks)

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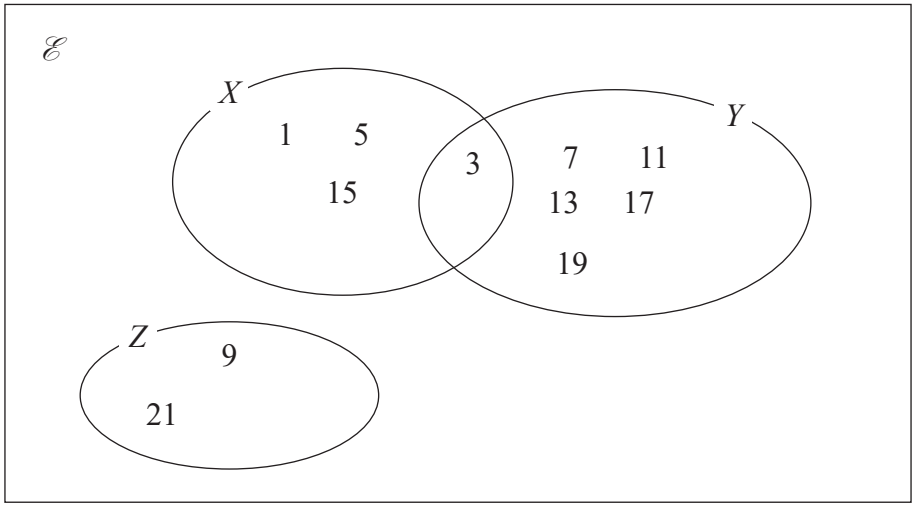
20 Here is a Venn diagram.



(a) List the members of

(i) X

.....

(1)

(ii) $X \cap Y$

.....

(1)

(iii) $X \cup Z$

.....

(1)

A number is chosen at random from $\mathscr{E}$.

(b) Find the probability that this number is in $Y \cup Z$.

.....

(2)

(Total for Question 20 is 5 marks)

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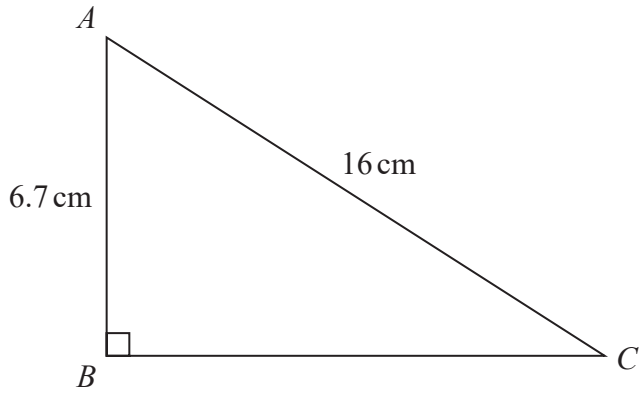
21 ABC is a right-angled triangle.



Calculate the length of BC.
Give your answer correct to 1 decimal place.

..... cm

(Total for Question 21 is 3 marks)

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22 (a) Write 1.04×10^5 as an ordinary number.

.....

(1)

(b) Write 0.06 in standard form.

.....

(1)

4.62×10^8 tins of beans were sold last year.
These tins of beans cost a total of £300.3 million.

(c) Work out the average cost per tin of beans.

£.....

(2)

(Total for Question 22 is 4 marks)

23 Becky buys a new car for £25 000

The value of this car will depreciate

by 20% at the end of the first year
and then by 12% at the end of every year after the first year.

Work out the value of the car at the end of 3 years.

£.....

(Total for Question 23 is 3 marks)

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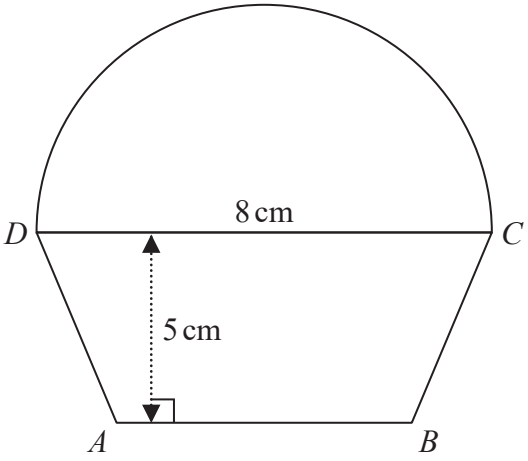
24 The diagram shows a shape made from a trapezium $ABCD$ and a semicircle with diameter DC.



$DC = 8\,\text{cm}$
The shape has area $64\,\text{cm}^2$
The height of the trapezium is 5 cm.

Work out the length of AB.
Give your answer correct to 1 decimal place.

..... cm

(Total for Question 24 is 5 marks)

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25 On Monday 4 bricklayers took 3 hours to lay a total of 4200 bricks.

On Tuesday there are only 2 bricklayers.

Work out how many hours it will take the 2 bricklayers to lay a total of 3150 bricks.

..... hours

(Total for Question 25 is 3 marks)

26 The length of a garden is 23 m, correct to the nearest metre.

Write down the least possible length of the garden.

..... m

(Total for Question 26 is 1 mark)

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27 (a) Factorise $m^2 - 9$

.....

(1)

(b) Expand and simplify $(x + 3)(2x - 5)$

.....

(2)

(Total for Question 27 is 3 marks)

TOTAL FOR PAPER IS 80 MARKS

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