

Write your name here

Surname	Other names
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Pearson Edexcel Centre Number Candidate Number
Level 1/Level 2 GCSE (9-1)

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Mathematics

Paper 1 (Non-Calculator)

Aiming for 4 **Foundation Tier**

Spring 2019 Practice Paper Time: 1 hour 30 minutes	Paper Reference 1MA1/1F
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You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.
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 not be used.**



Information

- The total mark for this paper is 80. There are 44 questions.
- Questions have been arranged in an ascending order of mean difficulty, as found by Grade 4 students in November 2017 examinations
- Questions marked with an asterisk (*) also appear on the Higher Tier paper.
- 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.

Answer ALL questions.

Write your answers in the spaces provided.

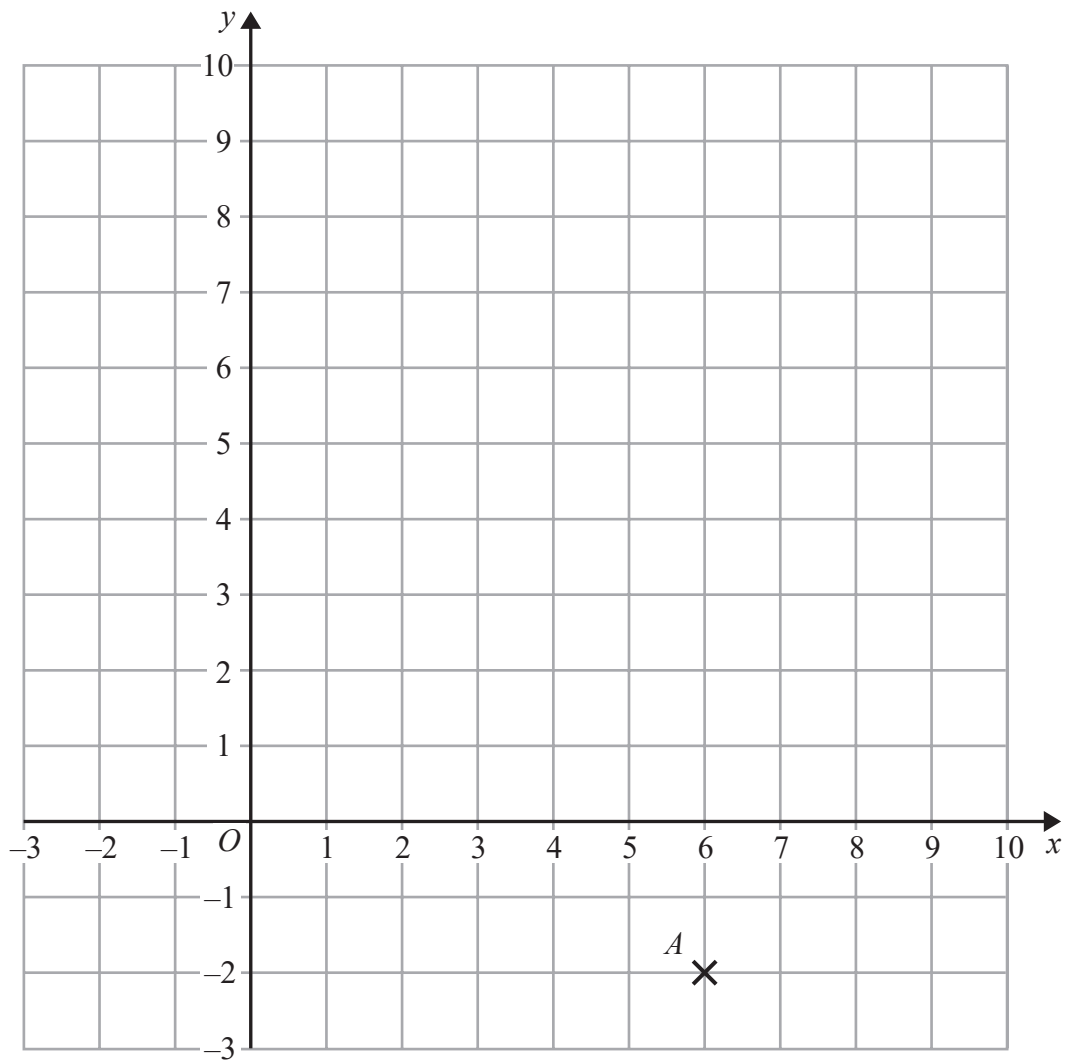
You must write down all the stages in your working.

1. (a) Write the following numbers in order of size.
Start with the smallest number.

−6 6 −5 0 12

.....
(Total for Question 1 is 1 mark)

2.

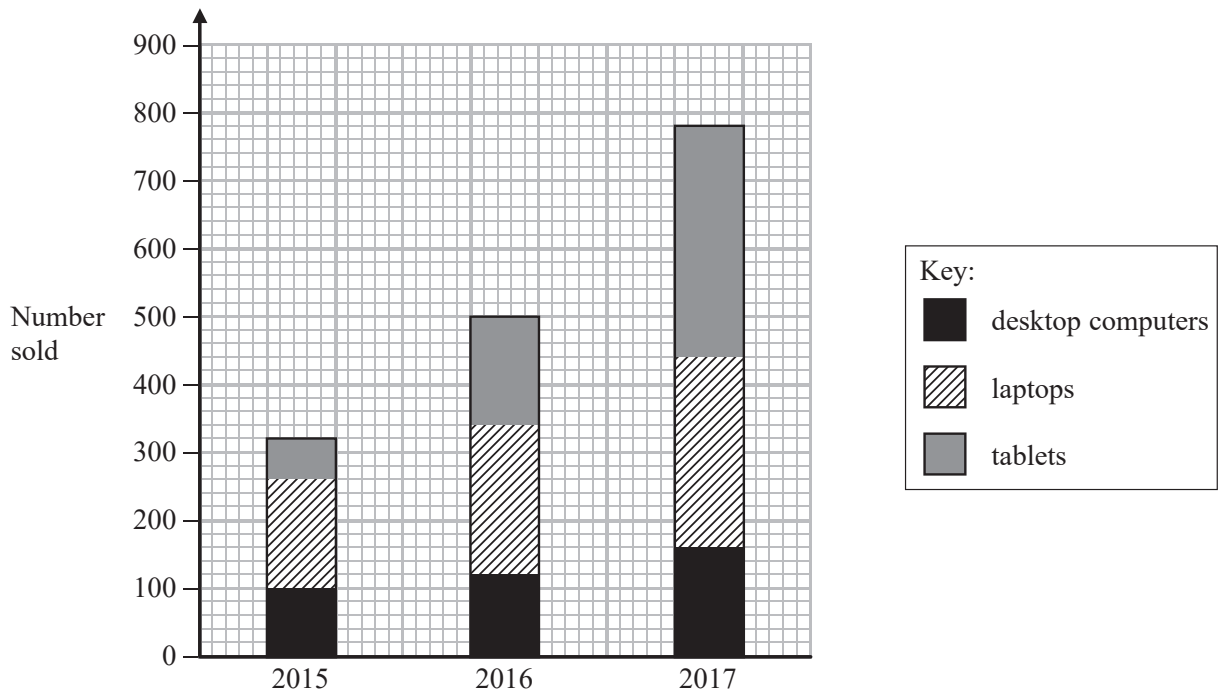


Plot the point with coordinates (2, 9).
Label this point *B*.

(Total for Question 2 is 1 mark)

3. A shop sells desktop computers, laptops and tablets.

The composite bar chart shows information about sales over the last three years.



(a) Write down the number of desktop computers sold in 2015.

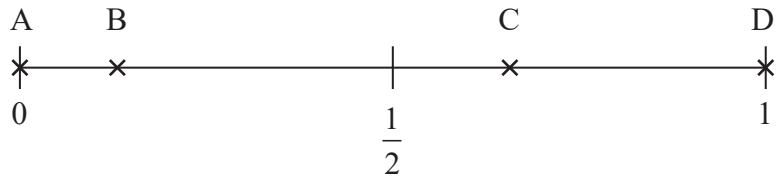
.....
(1)

(b) Work out the total number of laptops sold in the 3 years.

.....
(3)

(Total for Question 3 is 4 marks)

4. Here is a probability scale.
It shows the probability of each of the events A, B, C and D.



Write down the letter of the event that is certain.

.....
(Total for Question 4 is 1 mark)

5. Write 6324 correct to the nearest thousand.

.....
(Total for Question 5 is 1 mark)

6. Emma has 45 rabbits.
30 of the rabbits are male.
8 of the female rabbits have short hair.
12 of the rabbits with long hair are male.

Use the information to complete the two-way table.

	Male	Female	Total
Long hair			
Short hair			
Total			

(Total for Question 6 is 3 marks)

7. Here are the first four terms of a number sequence.

2 5 11 23

The rule to continue this sequence is

multiply the previous term by 2 and then add 1

Work out the 5th term of this sequence.

.....
(Total for Question 7 is 1 mark)

8. Simplify $3 \times 4t$

.....
(Total for Question 8 is 1 mark)

9. Write down the first even multiple of 7.

.....
(Total for Question 9 is 1 mark)

10. Here is a list of four fractions.

$$\frac{4}{16}$$

$$\frac{2}{8}$$

$$\frac{15}{60}$$

$$\frac{3}{9}$$

One of these fractions is **not** equivalent to $\frac{1}{4}$

Write down this fraction.

.....
(Total for Question 10 is 1 mark)

11. Tim and three friends go on holiday together for a week.

The 4 friends will share the costs of the holiday equally.

Here are the costs of the holiday.

£1280 for 4 return plane tickets

£640 for the villa

£220 for hire of a car for the week

Work out how much Tim has to pay for his share of the costs.

£

(Total for Question 11 is 3 marks)

12. There are 30 children in a nursery school.
At least 1 adult is needed for every 8 children in the nursery.
(a) Work out the least number of adults needed in the nursery.

.....
(2)

2 more children join the nursery.

- (b) Does this mean that more adults are needed in the nursery?
You must give a reason for your answer.

.....
(1)

(Total for Question 12 is 3 marks)

13. Here are four numbers.

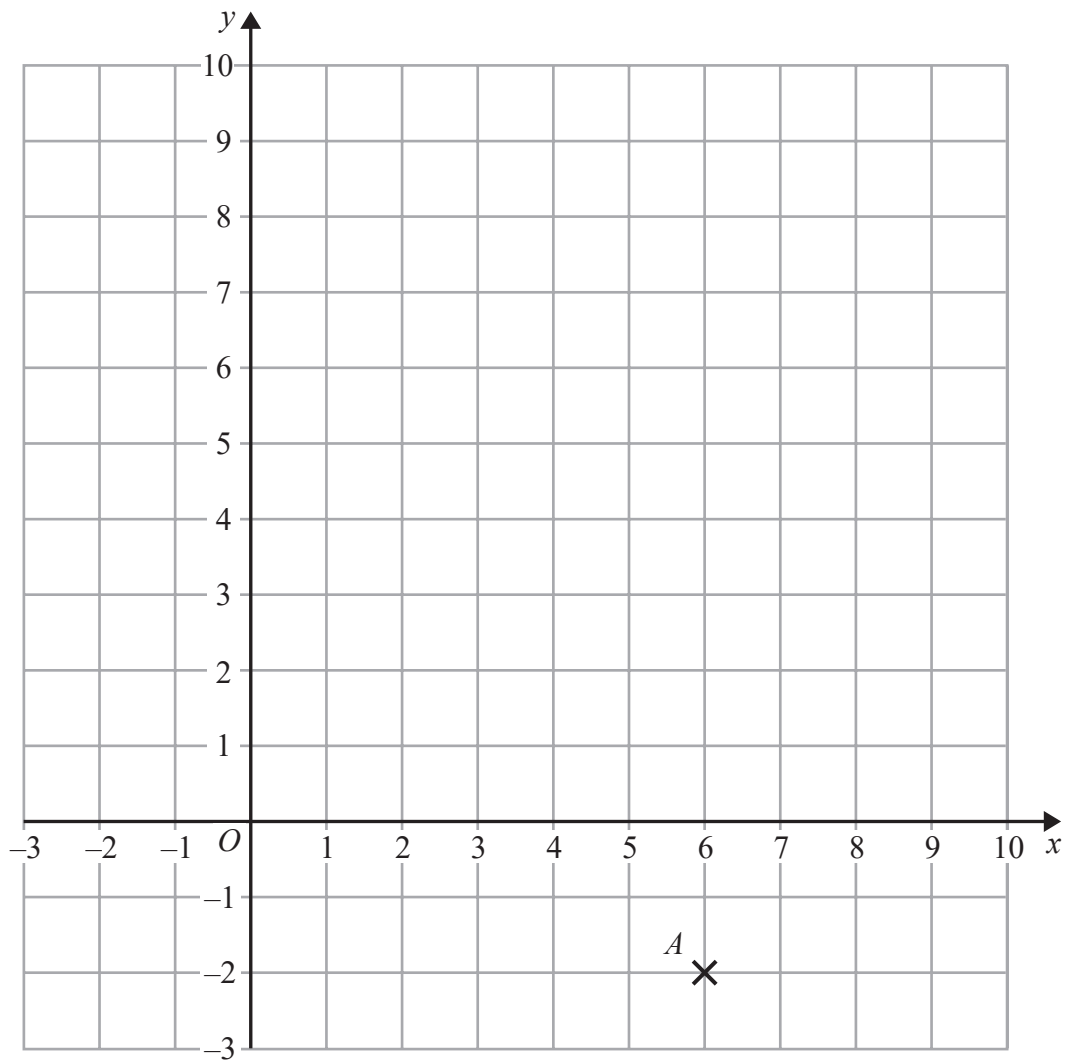
-9 -2 2 9

Write one of these numbers in each box to make a correct calculation.

$$\boxed{\text{.....}} + \boxed{\text{.....}} = -7$$

(Total for Question 13 is 1 mark)

14.



Write down the coordinates of the point *A*.

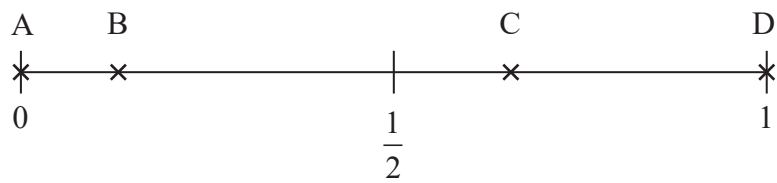
(..... ,)

(Total for Question 14 is 1 mark)

15. Write 20% as a fraction.

.....
(Total for Question 15 is 1 mark)

16. Here is a probability scale.
It shows the probability of each of the events A, B, C and D.



Write down the letter of the event that is unlikely.

.....
(Total for Question 16 is 1 mark)

17. Simplify $8a - 3a + 2a$

.....
(1)
(Total for Question 17 is 1 mark)

18. A piece of wire is 240 cm long.
Peter cuts two 45 cm lengths off the wire.
He then cuts the rest of the wire into as many 40 cm lengths as possible.
Work out how many 40 cm lengths of wire Peter cuts.

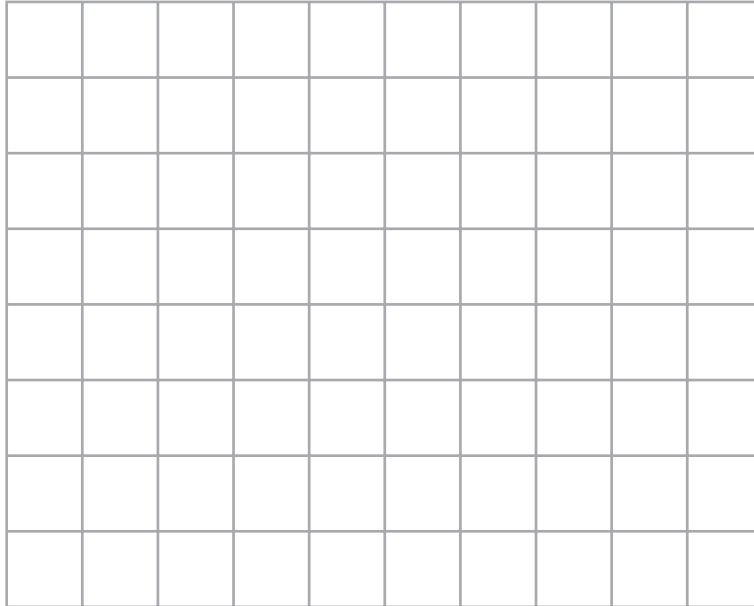
.....
(Total for Question 18 is 3 marks)

19. Write the following numbers in order of size.
Start with the smallest number.

0.078 0.78 0.87 0.708

.....
(Total for Question 19 is 1 mark)

20. The length of a rectangle is twice as long as the width of the rectangle.
The area of the rectangle is 32 cm^2 .
Draw the rectangle on the centimetre grid.



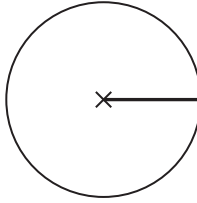
(Total for Question 20 is 2 marks)

21. 3 kg of meat costs £54.
Nina buys 2 kg of the meat.
Work out how much Nina pays.

£

(Total for Question 21 is 2 marks)

22. The centre of this circle is marked with a cross (×).



Write down the mathematical name of the straight line shown in the circle.

.....
(Total for Question 9 is 2 marks)

23. Work out 15% of 160 grams.

..... grams
(Total for Question 23 is 2 marks)

24 Work out $2 + 7 \times 10$

.....
(Total for Question 24 is 1 mark)

25. Write down an example to show that the following statement is **not** correct.

“All the digits in odd numbers are odd.”

.....
(Total for Question 25 is 1 mark)

26. Change 365 cm into metres.

..... m
(Total for Question 26 is 1 mark)

27. The stem and leaf diagram shows information about Jake’s computer game scores.

0	9
1	2 3 3 4 5
2	5 6 6 6 6 7
3	1 3 4 6 8
4	0 2 9

Key 1 2 represents 12 points
--

Jake said his modal score was 6 points because 6 occurs most often in the diagram.

Is Jake correct?

You must explain your answer.

.....
.....
(Total for Question 10 is 1 mark)

28. Harry, Regan and Kelan share £450 in the ratio 2 : 5 : 3
How much money does Kelan get?

£.....

(Total for Question 28 is 2 marks)

29. Here is a list of ingredients for making 16 flapjacks.

Ingredients for 16 flapjacks

120 g butter
140 g brown sugar
250 g oats
2 tablespoons syrup

Jenny wants to make 24 flapjacks.

Work out how much of each of the ingredients she needs.

butter g

brown sugar g

oats g

syrup tablespoons

(Total for Question 29 is 3 marks)

30. Berenika wants to buy 35 T-shirts.

Each T-shirt costs £5.80.

Berenika does the calculation $40 \times 6 = 240$ to estimate the cost of 35 T-shirts.

Explain how Berenika's calculation shows the actual cost will be less than £240.

.....
.....

(Total for Question 30 is 1 mark)

31. $P = 4x + 3y$

$$x = 5$$

$$y = -2$$

(a) Work out the value of P .

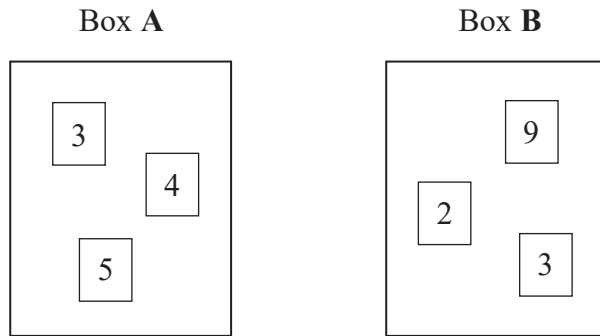
.....
(2)

(b) Expand $4e(e + 2)$

.....
(2)

(Total for Question 31 is 4 marks)

32. There are 3 cards in Box A and 3 cards in Box B.
There is a number on each card.



Ryan takes at random a card from Box A and a card from Box B.
He adds together the numbers on the two cards to get a total score.

Work out the probability that the total score is an odd number.

.....
(Total for Question 32 is 2 marks)

33. There are 12 counters in a bag.
3 of the counters are red.
1 of the counters is blue.
2 of the counters are yellow.
The rest of the counters are green.

Caitlin takes at random a counter from the bag.

Show that the probability that this counter is yellow or green is $\frac{2}{3}$

(Total for Question 33 is 3 marks)

34. Change 2.7 kg into grams.

..... g

(Total for Question 34 is 1 mark)

35. Write down an example to show that the following two statement is **not** correct.

“The factors of an even number are always even.”

.....

(Total for Question 35 is 1 mark)

36. Berenika wants to buy 35 T-shirts. There is a special offer.

T-shirts £5.80 each.
Buy 30 or more T-shirts.
Get 10% off the total cost.

Work out the actual cost of buying 35 T-shirts using the special offer.

£.....
(Total for Question 36 is 4 marks)

37. $A = \{\text{multiples of 5 between 14 and 26}\}$
 $B = \{\text{odd numbers between 14 and 26}\}$

List the members of $A \cup B$

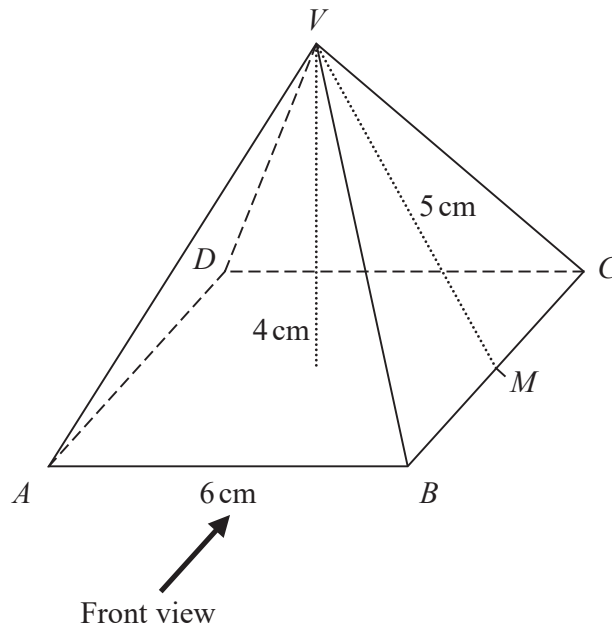
.....
(Total for Question 37 is 2 marks)

- 38.** Renee buys 5 kg of sweets to sell.
She pays £10 for the sweets.
- Renee puts all the sweets into bags.
She puts 250 g of sweets into each bag.
She sells each bag of sweets for 65p.
- Renee sells all the bags of sweets.
- Work out her percentage profit.

..... %

(Total for Question 38 is 4 marks)

39. Here is a solid square-based pyramid, $VABCD$.



The base of the pyramid is a square of side 6 cm. The height of the pyramid is 4 cm. M is the midpoint of BC and $VM = 5$ cm.

Draw an accurate front elevation of the pyramid from the direction of the arrow.



(Total for Question 39 is 2 marks)

40. Work out $\frac{2}{5} + \frac{1}{4}$

.....
(Total for Question 40 is 2 marks)

41. Write 36 as a product of its prime factors.

.....
(Total for Question 41 is 2 marks)

42. Solve $3(m - 4) = 21$

$m = \dots\dots\dots$

(Total for Question 16 is 2 marks)

43. There are only red buttons, yellow buttons and orange buttons in a jar.
The number of red buttons, the number of yellow buttons and the number of orange buttons are in the ratio 7 : 4 : 9

Work out what percentage of the buttons in the jar are orange.

$\dots\dots\dots\%$

(Total for Question 43 is 2 marks)

44. There are some chocolates in a box.

$\frac{1}{4}$ of the chocolates contain nuts.

The rest of the chocolates do not contain nuts.

Write down the ratio of the number of chocolates that contain nuts to the number of chocolates that do not contain nuts.

Give your answer in the form $1 : n$

.....
(Total for Question 44 is 2 marks)

TOTAL FOR PAPER IS 80 MARKS

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