

**2025 national curriculum tests**

# **Key stage 2**

**Mathematics**

## **Paper 3: reasoning**

### **MODIFIED LARGE PRINT**

**First name** \_\_\_\_\_

**Middle name** \_\_\_\_\_

**Last name** \_\_\_\_\_

**Date of birth**      **Day** \_\_\_\_\_ **Month** \_\_\_\_\_ **Year** \_\_\_\_\_

**School name** \_\_\_\_\_

**DfE number** \_\_\_\_\_

#### **Note to markers**

This paper should be marked using the standard mark schemes for KS2 Mathematics: Paper 3. There is additional guidance on marking some questions in this paper in the Key stage 2 Mathematics amendments to mark schemes – MLP document.

# Instructions

You **must not** use a calculator to answer any questions in this test.

## Questions and answers

You have **40** minutes, plus your additional time allowance, to complete this test.

Follow the instructions for each question.

Work as quickly and as carefully as you can.

If you need to do working out, you can use any space on the page.

## Method questions

Some questions say: ‘Show your method.’  
For these questions, you may get a mark for showing your method.

**If you cannot do a question, go on to the next one. You can come back to it later, if you have time.**

**If you finish before the end, go back and check your work.**

1. **Tick or mark the numbers that have 8 in the thousands place.**

**84 623**

**28 436**

**683 052**

**8 325**

**608 231**

**2. Tick or mark all the numbers  
that are less than  
one million and fifty thousand.**

**1 400 000**

**1 049 900**

**1 060 000**

**1 030 900**

**3. There were 15 961 people at a football game.**

**Round 15 961 to the nearest hundred.**

---

**4. Jack buys 2 kilograms of pears.**

**He spends £3.28**

**What is the cost of one kilogram of pears?**

**£ \_\_\_\_\_**

**5. Look at the grid on the opposite page.**

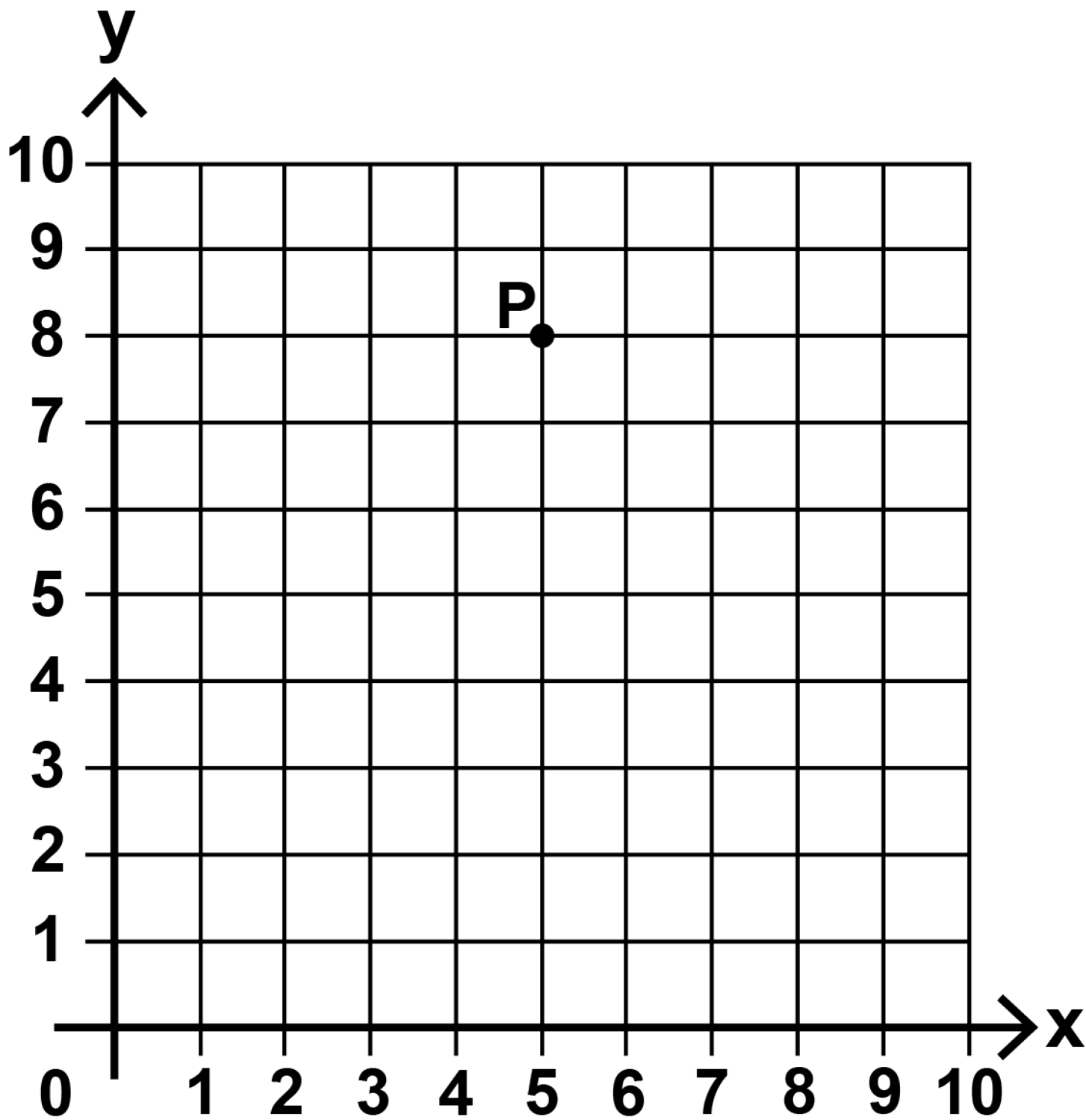
**Point P is located at (5, 8) on the grid.**

**Point P is translated 4 units right,  
6 units down and 2 units left.**

**What is the location of point P after  
the three translations?**

**( \_\_\_\_\_ , \_\_\_\_\_ )**





**6. The mass of an empty truck is  
2 250 kilograms.**

**It is then loaded with 8 boxes.**

**The mass of each box is  
25 kilograms.**

**What is the total mass of the truck  
and its load?**

**Show your method.**

**\_\_\_\_\_ kilograms**

7. Draw **four lines** to match each improper fraction to its equivalent mixed number.

$$\frac{26}{4}$$

$$\frac{27}{5}$$

$$\frac{30}{4}$$

$$\frac{32}{5}$$

$$5\frac{2}{5}$$

$$4\frac{2}{5}$$

$$6\frac{2}{4}$$

$$4\frac{2}{4}$$

$$7\frac{2}{4}$$

$$6\frac{2}{5}$$

- 8. Ken buys three items.  
The prices are shown below.**

**Milk: 80p  
Cereal: £2.50  
Bread: £1.15**

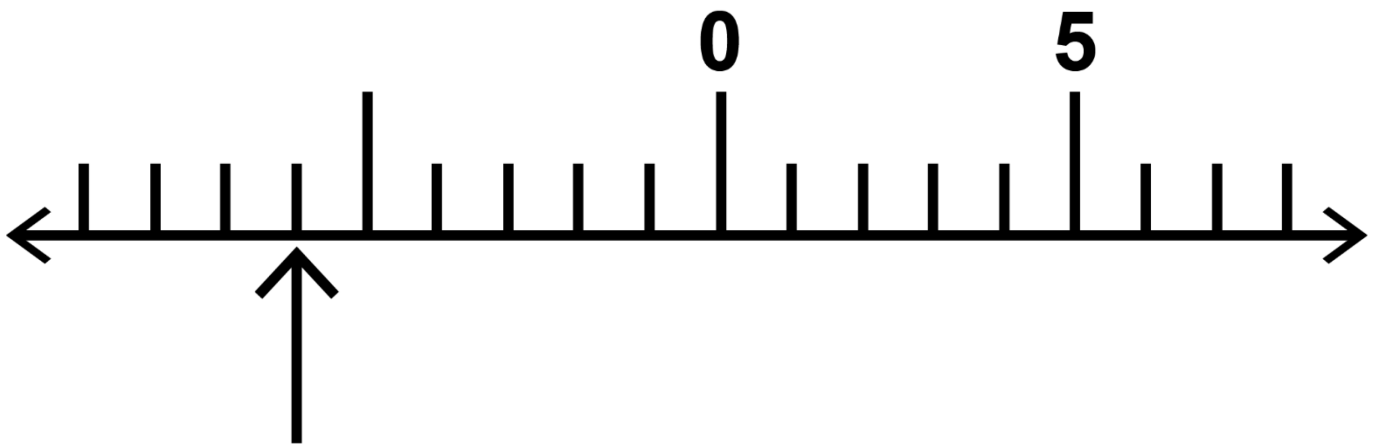
**He pays with a £20 note.**

**How much change does Ken get?**

**Show your method.**

**£ \_\_\_\_\_**

9. The diagram below shows part of a number line with one arrow.



- (a) Write the number that the arrow is pointing to.

---

- (b) Write the number that is 16 less than 7

---

**10. The table on the opposite page shows some information about four animals in a zoo.**

**Look at the four statements below.  
Tick or mark the statements that are true.**

**The elephant is exactly three times heavier than the rhino.**

**The hippo is a quarter of the height of the giraffe.**

**The rhino is 20 cm taller than the hippo.**

**The tallest animal is also the heaviest.**

	<b>Mass</b>	<b>Height</b>
<b>Elephant</b>	<b>6 300 kg</b>	<b>3.4 m</b>
<b>Hippo</b>	<b>1 100 kg</b>	<b>1.5 m</b>
<b>Rhino</b>	<b>2 400 kg</b>	<b>1.7 m</b>
<b>Giraffe</b>	<b>1 200 kg</b>	<b>6.0 m</b>

- 11. Look at the four number sentences below.**

**Tick or mark the number sentence that is correct.**

$$0.304 = \frac{4}{10} + \frac{3}{1000}$$

$$0.43 = \frac{43}{1000}$$

$$0.403 = \frac{4}{10} + \frac{3}{1000}$$

$$0.034 = \frac{3}{10} + \frac{4}{1000}$$



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**The test continues on the next page.**

**12. Look at the six digital times below.**

**12:35**

**04:05**

**21:45**

**07:20**

**22:45**

**19:20**

**Write the digital time from the list  
that is equivalent to each written time  
on the opposite page.**

**One has been done for you.**

**five past 4 in the morning**

**04:05**

**(a) 25 minutes to 1 in the afternoon**

---

**(b) 20 minutes past 7 in the morning**

---

**(c) quarter to 11 in the evening**

---

- 13. Write these numbers in order, starting with the least.**

$$\frac{9}{100}$$

$$0.999$$

$$\frac{99}{100}$$

$$0.009$$

\_\_\_\_\_

**least**

**14. Look at this expression.**

$$**y + 4**$$

- (a) Tick or mark the value for  $y$  that gives a prime number value for  $y + 4$**

$$**y = 8**$$

$$**y = 9**$$

$$**y = 10**$$

- (b) Tick or mark the value for  $y$  that gives a square number value for  $y + 4$**

$$**y = 5**$$

$$**y = 6**$$

$$**y = 7**$$

- 15. A factory makes T-shirts and dresses.  
They pack them in boxes.**

**There are 50 T-shirts in a box.**

- (a) How many T-shirts are there in  
250 boxes?**

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**There are 40 dresses in a box.**

- (b) How many boxes are needed  
for 3 000 dresses?**

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**The test continues on the next page.**

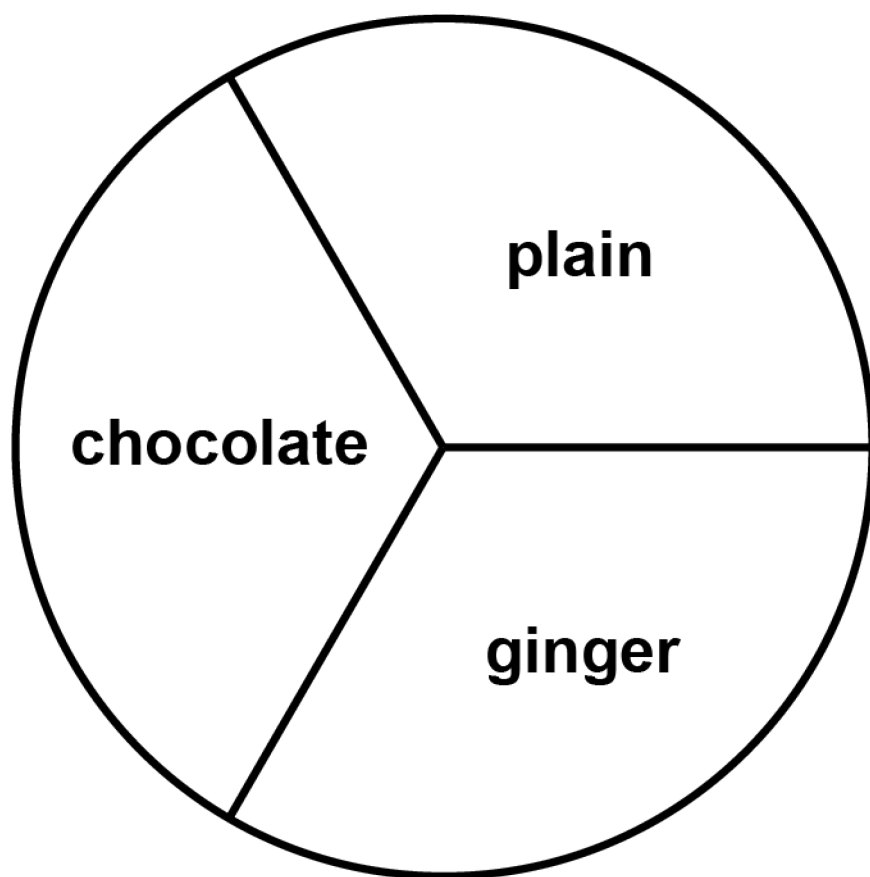
**16. Look at the two pie charts on the opposite page. The pie charts show the biscuits in two tins.**

**Tin B has more chocolate biscuits than Tin A.**

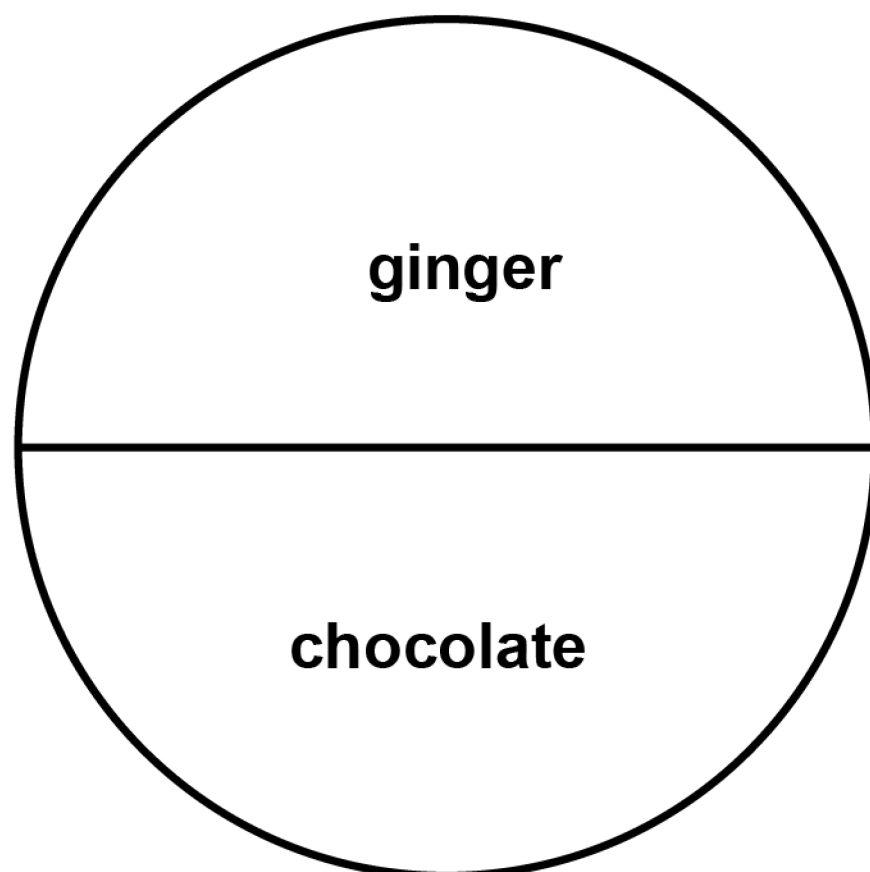
**Explain why this is incorrect.**



**Tin A has 36 biscuits.**



**Tin B has 20 biscuits.**



**17. A shop buys 35 boxes of crisps.**

**Each box contains 48 packets of crisps.**

**On average, the shop sells 56 packets of crisps each day.**

**How many days will it take for all of the crisps to be sold?**

**Show your method.**

**\_\_\_\_\_ days**

**18. (a) Convert 5.65 km to metres.**

\_\_\_\_\_ m

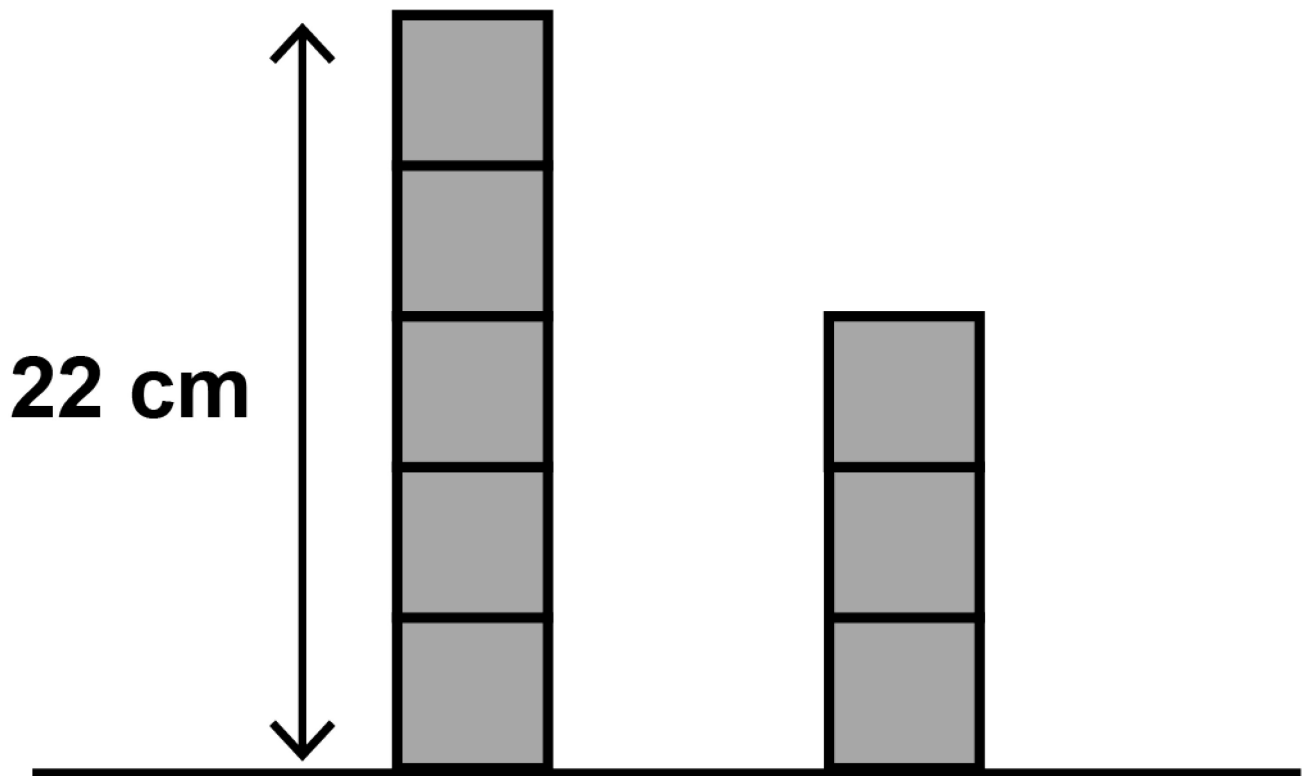
**(b) Convert 35.5 cm to metres.**

\_\_\_\_\_ m

**19. Jacob has some wooden blocks that are all the same size.**

**He uses the blocks to make two towers.**

**Not actual size**



**The height of the taller tower is  
22 centimetres.**

**What is the height of the  
smaller tower?**

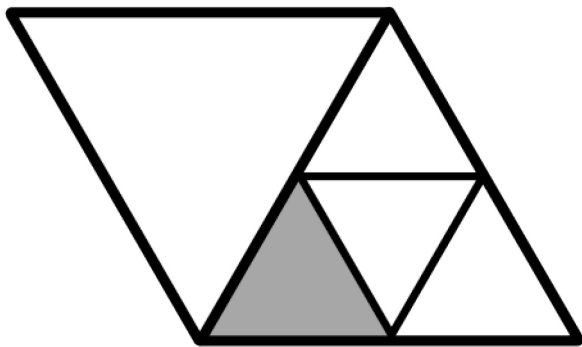
**Show your method.**

**\_\_\_\_\_ cm**

- 20. The shape below is made from two large equilateral triangles.**

**One of the large triangles is divided into four smaller equilateral triangles.**

**One of the smaller triangles is shaded.**



**What fraction of the whole shape is shaded?**

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**21. Here is some information about a number:**

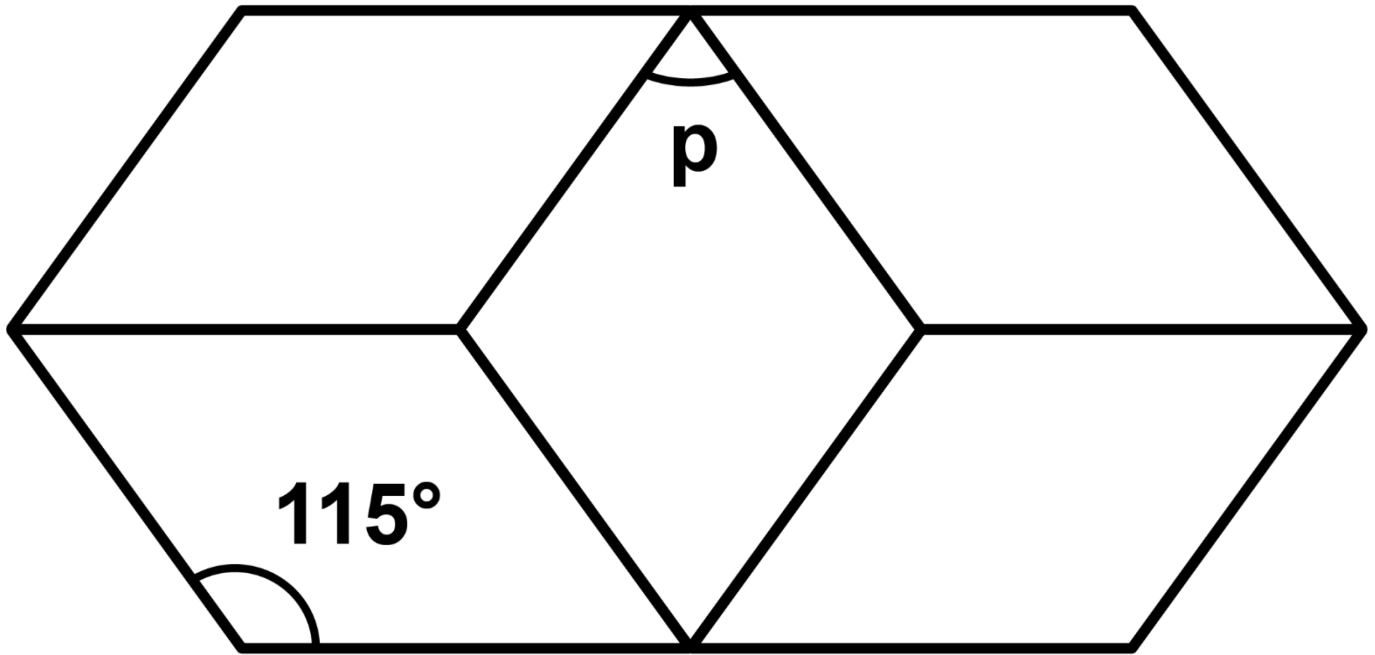
- **It has two digits**
- **It is a multiple of 7**
- **One of the digits is 8**

**Write all the possible numbers that the number could be.**

---

22. This diagram shows four identical parallelograms and a rhombus.

Not to scale



Calculate the size of angle  $p$ .

Show your method.

○



**End of test**

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Key stage 2 mathematics  
Modified large print Paper 3: reasoning

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