

**2018 national curriculum tests**

**Key stage 2**

**MATHEMATICS**

**Modified large print**

**Paper 2: reasoning**

**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 modified large print amendments to the mark schemes – MLP with the standard mark schemes for KS2 Mathematics: Paper 2.**

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# Instructions

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

## Questions and answers

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

**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.**

**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. Stefan completes the calculation below.

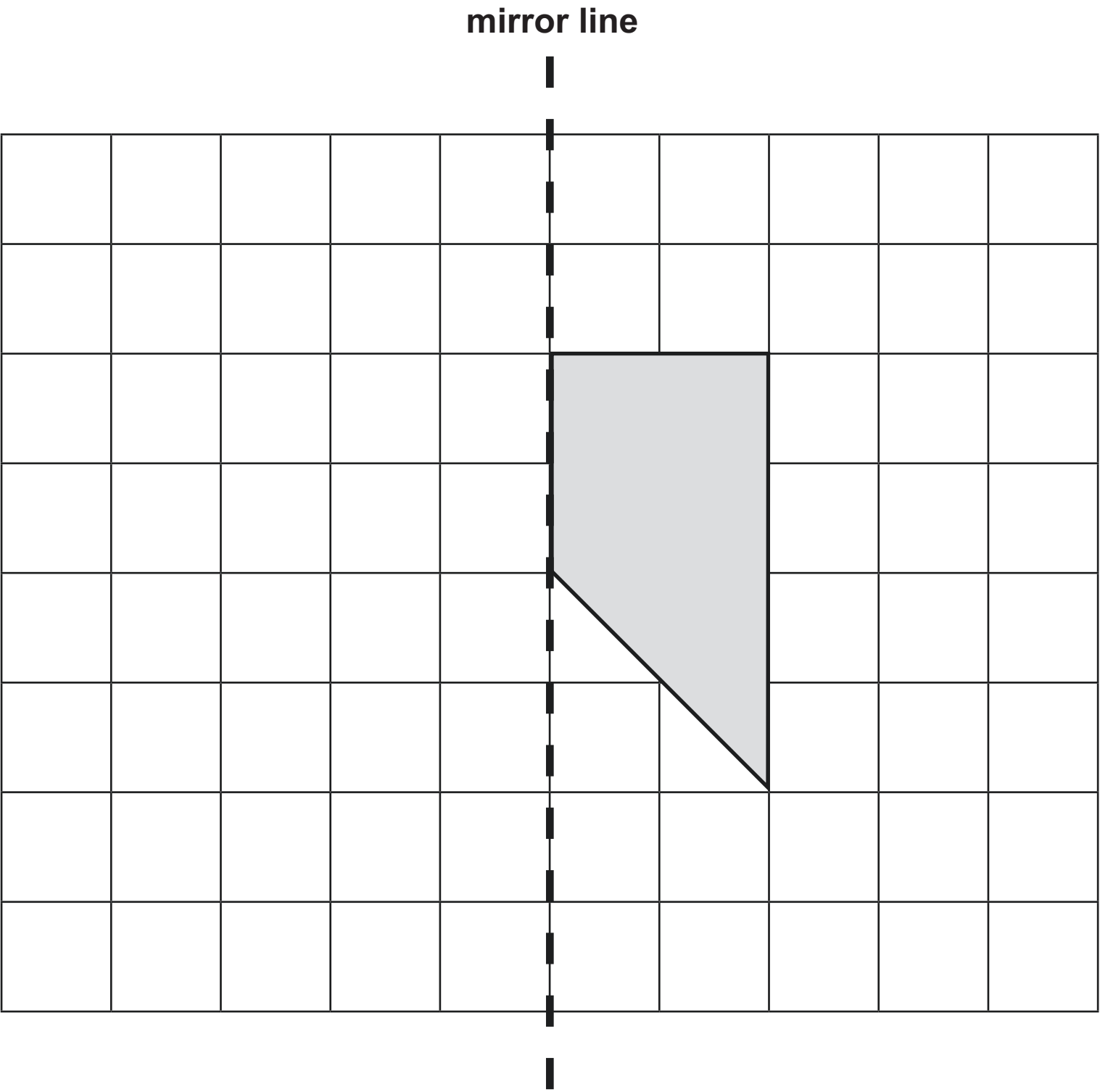
$$95 - 67 = 28$$

Write an addition calculation he could use to check his answer.

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

2. You have a shape for this question.

Look at the shape on the grid below.



Complete the design so that it is symmetrical about the mirror line.

Use a ruler.

3. You have a separate copy of the diagram.

On the line below, mark the point that is **6.5** centimetres from **A**



4. a)  $\frac{3}{4} = \frac{9}{\boxed{\phantom{00}}}$

Write the missing number in the box.

b)  $\frac{3}{4} = \frac{\boxed{\phantom{00}}}{24}$

Write the missing number in the box.

5. The table below shows the temperatures in four cities at midnight and at midday.

City	At midnight	At midday
Paris	$-4^{\circ}\text{C}$	$-2^{\circ}\text{C}$
Oslo	$-13^{\circ}\text{C}$	$-7^{\circ}\text{C}$
Rome	$3^{\circ}\text{C}$	$10^{\circ}\text{C}$
Warsaw	$-6^{\circ}\text{C}$	$2^{\circ}\text{C}$

At midnight, how many degrees colder was Paris than Rome?

\_\_\_\_\_ degrees

Which city was **6** degrees colder at midnight than at midday?

\_\_\_\_\_

6. Look at the sequence below.

303 604    302 604    301 604    300 604    \_\_\_\_\_

The numbers in this sequence decrease by the same amount each time.

What is the next number in the sequence?

\_\_\_\_\_



7. Look at the five numbers below.

$$0.25$$

$$0.75$$

$$\frac{25}{100}$$

$$0.5$$

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

Tick the two numbers that are equivalent to  $\frac{1}{4}$

8. Ken buys **3** large boxes and **2** small boxes of chocolates.

Each large box has **48** chocolates.

Each small box has **24** chocolates.

How many chocolates did Ken buy altogether?

Show your method.

\_\_\_\_\_ chocolates

9. The list below shows the years in which the Cricket World Cup was held since **1992**

**1992    1996    1999    2003    2007    2011    2015**

Adam says that the Cricket World Cup has been held every four years since **1992**

Adam is not correct.

Explain how you know.

10. Look at the three symbols below.

**>   =   <**

**Write the correct symbol in each box below to make the four statements correct.**

$$11 \times 12 \quad \square \quad 15 \times 10$$

$$90 \div 30 \quad \square \quad 60 \div 20$$

$$120 \div 4 \quad \square \quad 160 \div 8$$

$$30 \times 8 \quad \square \quad 100 \times 10$$

11. You have a model of a **3-D** shape for this question.

How many faces does it have?

\_\_\_\_\_

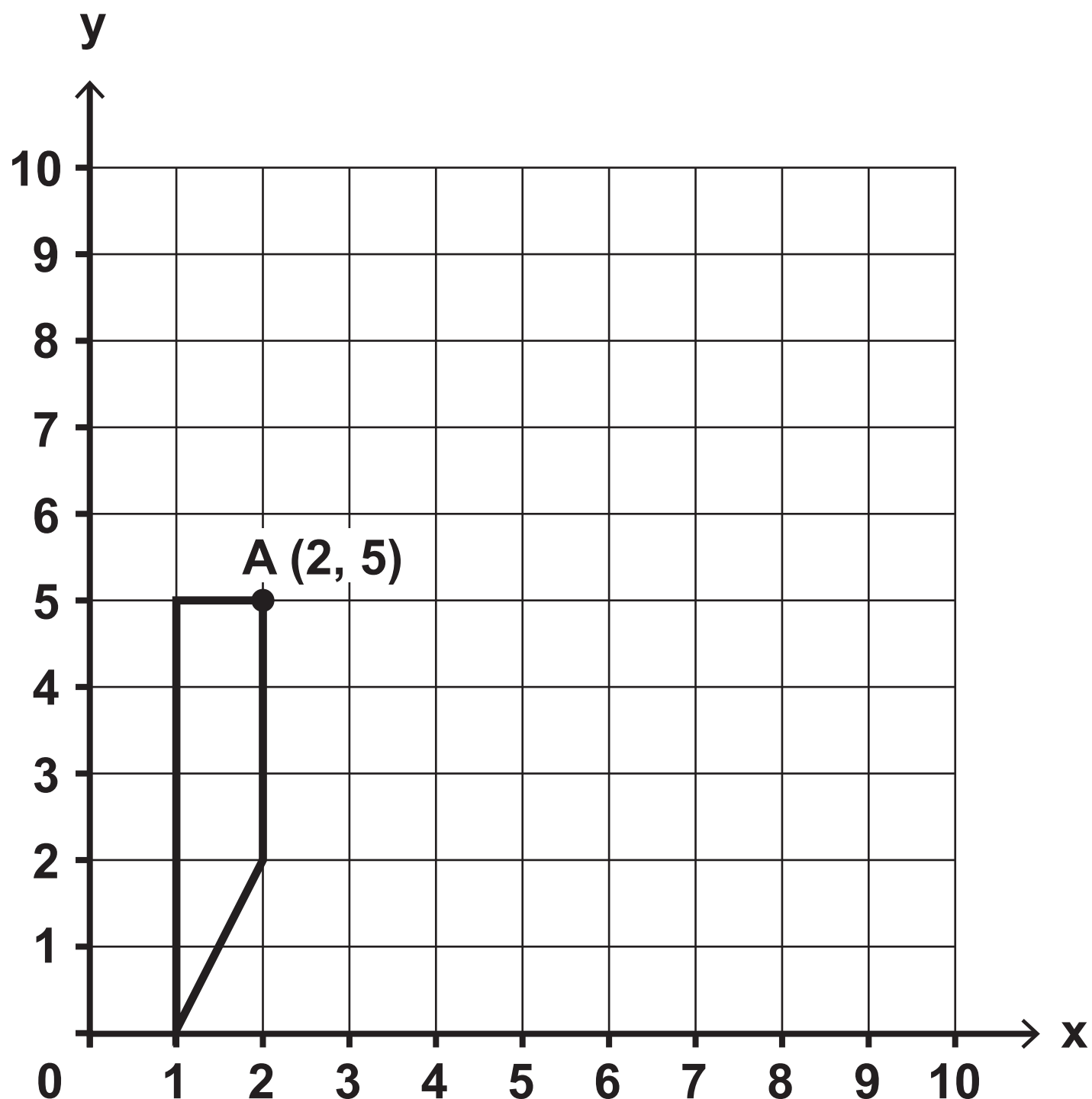
How many vertices does it have?

\_\_\_\_\_

How many edges does it have?

\_\_\_\_\_

12. Look at the shape on the grid below.



**A** is the point **(2, 5)**

The shape is translated so that point **A** moves to **(6, 8)**

Draw the shape in its new position.

Use a ruler.

13. Look at the five improper fractions below.

$$\frac{67}{8}$$

$$\frac{48}{8}$$

$$\frac{62}{8}$$

$$\frac{55}{8}$$

$$\frac{76}{8}$$

Tick the fraction that is equivalent to  $6\frac{7}{8}$

14. Look at the three fractions below.

$$\frac{6}{5} \quad \frac{3}{5} \quad \frac{3}{4}$$

Write these fractions in order, starting with the smallest.

---

smallest



**15. A box contains trays of melons.**

**There are 15 melons in a tray.**

**There are 3 trays in a box.**

**A supermarket sells 40 boxes of melons.**

**How many melons does the supermarket sell?**

**Show your method.**

\_\_\_\_\_ melons

16. Adam wants to use a mental method to calculate  $182 - 97$

He starts from **182**

Four methods that Adam could use are shown below.

add **3** then subtract **90**

☐

subtract **100** then add **3**

☐

subtract **7** then subtract **90**

☐

subtract **3** then subtract **100**

☐

Tick the methods that are correct.

17. There are **28** pupils in a class.

The teacher has **8** litres of orange juice.

She pours **225** millilitres of orange juice for every pupil.

How much orange juice is left over?

Show your method.

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**18. Last year, Jacob went to four concerts.**

**Three of his tickets cost £5 each.**

**The other ticket cost £7**

**What was the mean cost of the tickets?**

**Show your method.**

**£ \_\_\_\_\_**

19. Layla wants to estimate the answer to the calculation below.

$$3\frac{9}{10} - 2\frac{1}{8} + 1\frac{4}{5}$$

Tick the calculation below that is the best estimate.

Tick one.

$3 - 2 + 2$  ☐

$4 - 2 + 1$  ☐

$4 - 2 + 2$  ☐

$3 - 2 + 1$  ☐

**20. The length of an alligator can be estimated by**

**measuring the distance from its eyes to its nose**

**then multiplying that distance by 12**

**The distance from eyes to nose for one alligator is 17.5 cm**

**The distance from eyes to nose for another alligator is 15 cm**

**What is the difference in the estimated lengths of these two alligators?**

**Show your method.**

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

21. In this question

 and  stand for two different numbers.

$$2 \triangle + 3 \bigcirc = 147$$

$$\triangle + 3 \bigcirc = 111$$

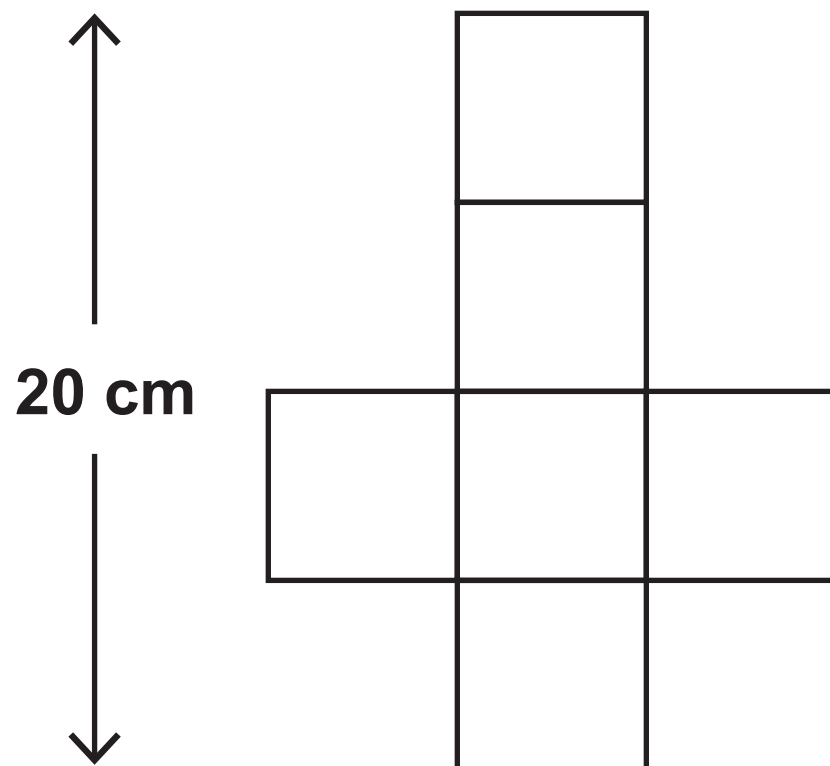
Calculate the value of each shape.

$$\triangle = \underline{\hspace{2cm}}$$

$$\bigcirc = \underline{\hspace{2cm}}$$

**22. Look at the diagram below.**

**It is not actual size.**



**The diagram shows the net of a cube.**

**What is the volume of the cube?**

\_\_\_\_\_ **cm<sup>3</sup>**



23. The length of a day on Earth is **24** hours.

The length of a day on Mercury is  **$58\frac{2}{3}$**  times the length of a day on Earth.

What is the length of a day on Mercury, in hours?

Show your method.

\_\_\_\_\_ hours

**END OF TEST**



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2018 key stage 2 mathematics

Paper 2: reasoning

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# Copy of diagram for question 3



