

# 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.

**BLANK PAGE**

# 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.

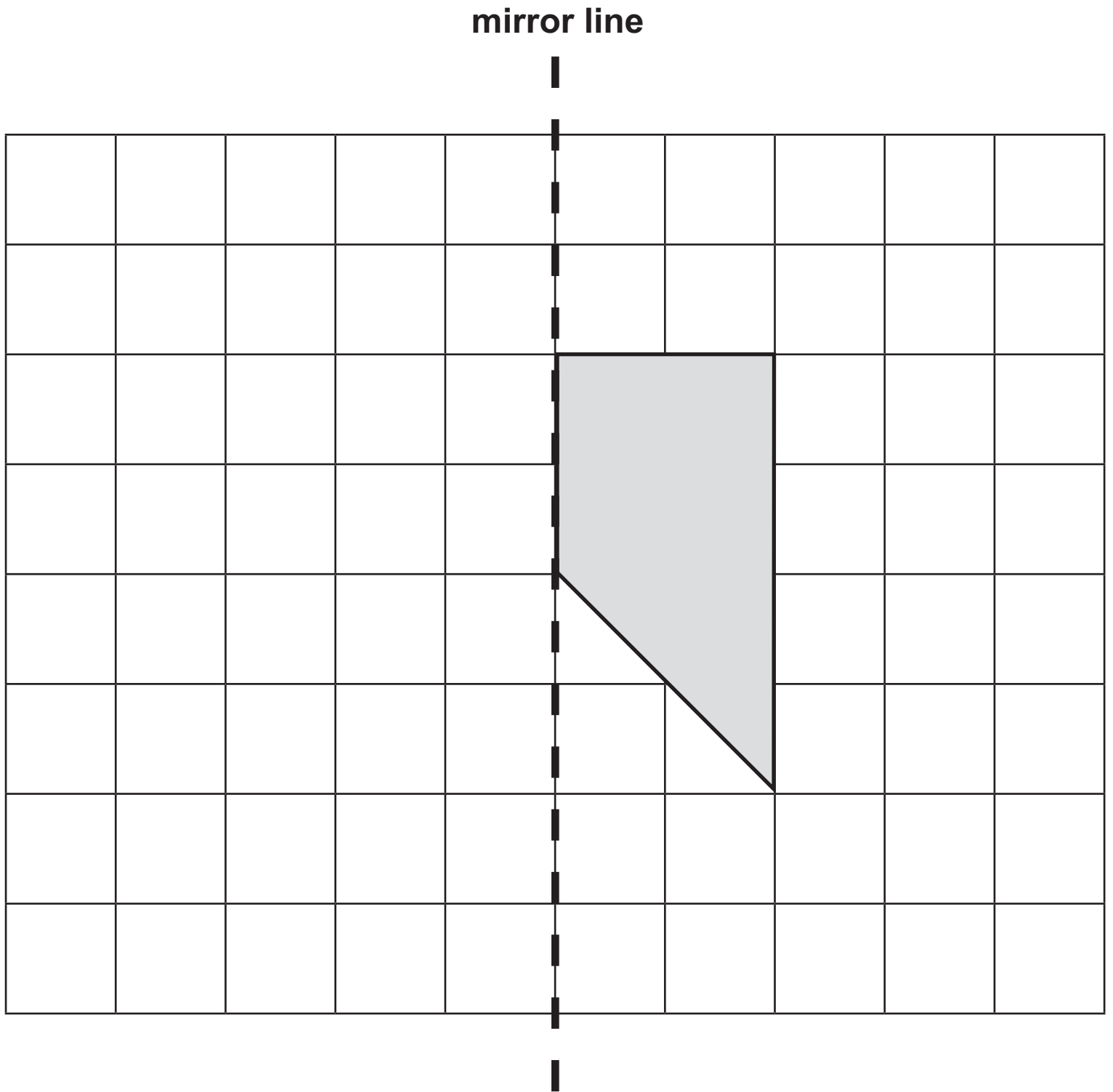
$$95 - 67 = 28$$

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

$$\underline{\quad\quad} + \underline{\quad\quad} = \underline{\quad\quad}$$

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)  $\frac{3}{4} = \frac{9}{\square}$

Write the missing number in the box.

b)  $\frac{3}{4} = \frac{\square}{24}$

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?

---

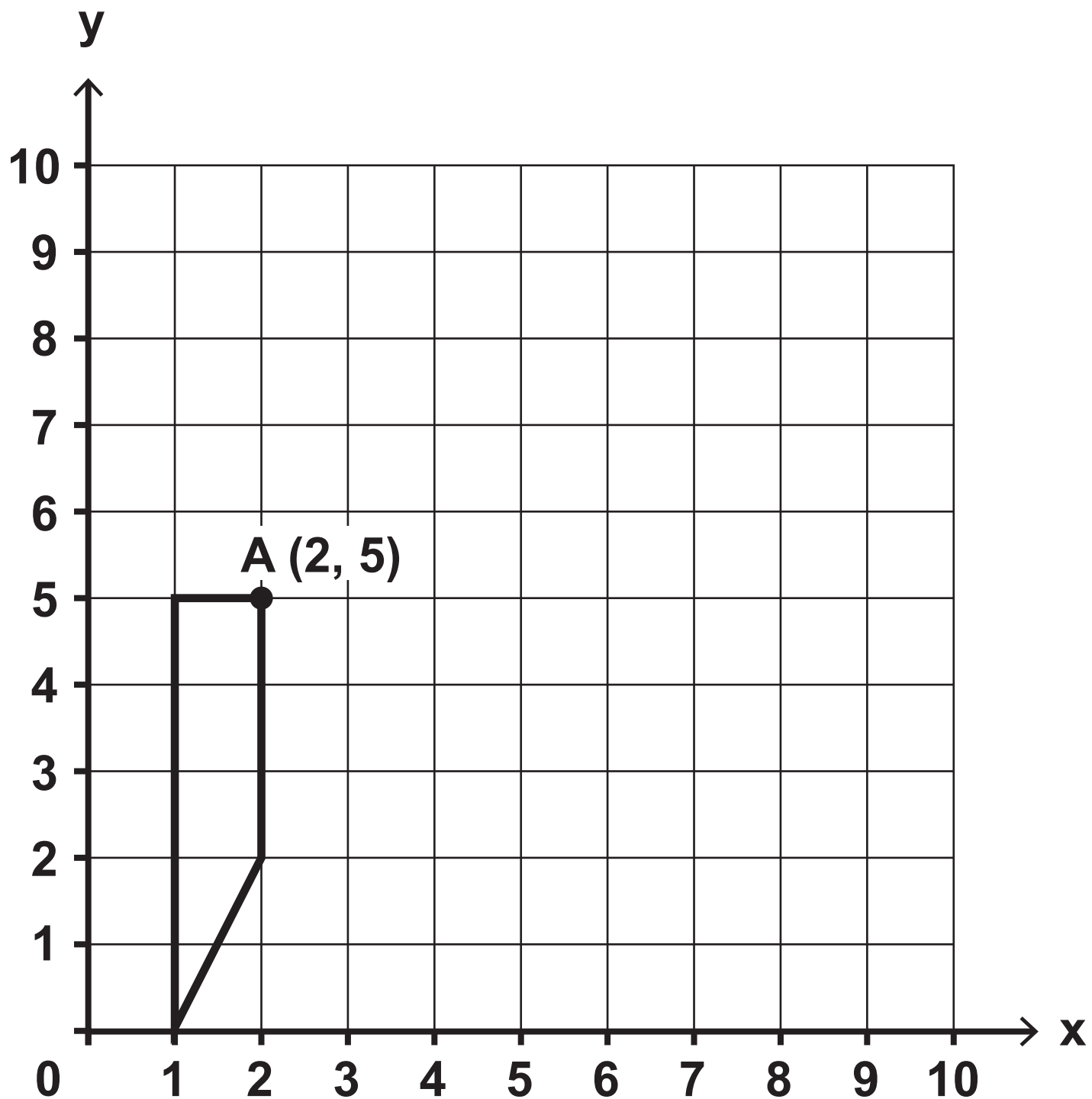
How many vertices does it have?

---

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.

---

**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.

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

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

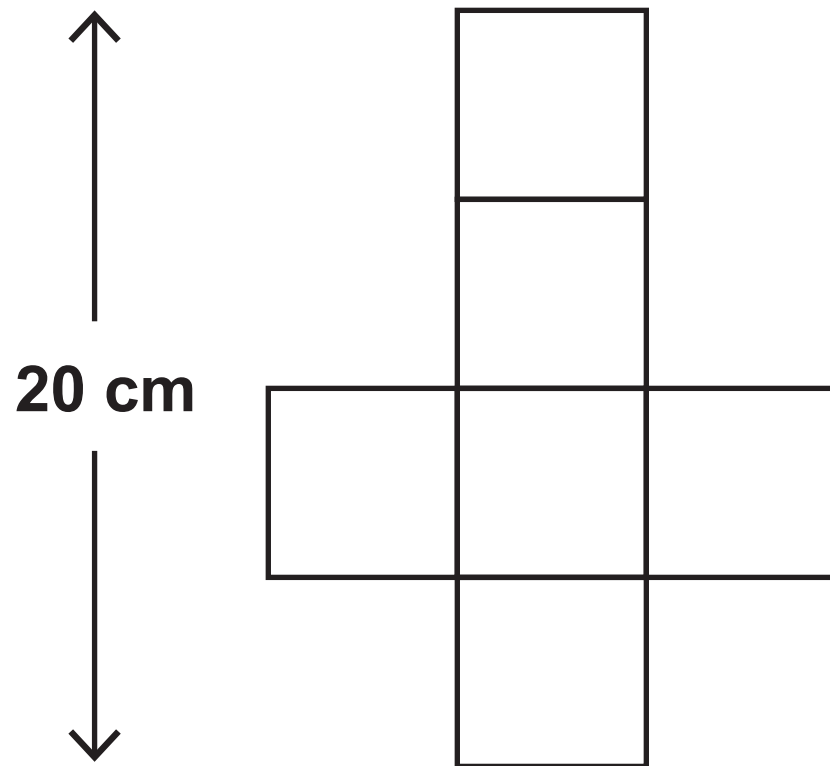
Calculate the value of each shape.

$$\triangle = \underline{\hspace{4cm}}$$

$$\bigcirc = \underline{\hspace{4cm}}$$

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?

\_\_\_\_\_  $\text{cm}^3$



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**



Standards  
& Testing  
Agency

2018 key stage 2 mathematics

Paper 2: reasoning

Print version product code: STA/18/7974/MLp ISBN: 978-1-78644-669-5

Electronic PDF version product code: STA/18/7974/Mle ISBN: 978-1-78644-791-3

**For more copies**

Additional printed copies of this modified large print test paper can be ordered by contacting the STA's modified test agency on 0300 303 3019.

© Crown copyright 2018

**Re-use of Crown copyright in test materials**

Subject to the exceptions listed below, these test materials are Crown copyright and you may re-use them (not including logos) free of charge in any format or medium in accordance with the terms of the Open Government Licence v3.0 which can be found on the National Archives website and accessed via the following link: [www.nationalarchives.gov.uk/doc/open-government-licence](http://www.nationalarchives.gov.uk/doc/open-government-licence). When you use this information under the Open Government Licence v3.0, you should include the following attribution: 'Contains material developed by the Standards and Testing Agency for 2018 national curriculum assessments and licensed under Open Government Licence v3.0' and where possible provide a link to the licence.



**Exceptions – third-party copyright content in test materials**

You must obtain permission from the relevant copyright owners, as listed in the '2018 key stage 2 tests copyright report', for re-use of any third-party copyright content which we have identified in the test materials, as listed below. Alternatively, you should remove the unlicensed third-party copyright content and/or replace it with appropriately licensed material.

**Third-party content**

These materials contain no third-party copyright material.

If you have any queries regarding these test materials, contact the national curriculum assessments helpline on 0300 303 3013 or email [assessments@education.gov.uk](mailto:assessments@education.gov.uk).

# Copy of diagram for question 3



