2023 national curriculum tests

Key stage 2

MATHEMATICS

Modified large print

Paper 1: arithmetic

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 1. There is additional guidance on marking some questions in this paper in the Key stage 2 Mathematics amendments to mark schemes – MLP document.

STA/23/8717/MLe

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Instructions

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

Questions and answers

You will have 30 minutes to complete this test, plus your additional time allowance.

Work as quickly and as carefully as you can.

Put your answer on the line or in the box for each question.

All answers should be given as a single value.

For questions expressed as common fractions or mixed numbers, you should give your answer as a common fraction, a mixed number or a whole number as appropriate.

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.

Marks

In this test, long division and long multiplication questions are worth two marks each. You will be awarded two marks for a correct answer. You may get one mark for showing a formal method.

All other questions are worth one mark each.

1. **707 − 10 = _____**

2. **□ = 6 138 + 456**

3. **4 × 702 = _____**

4. **□ = 8 005 + 408**

5. $2 \times 4 \times 30 =$ _____

6. $\square = 10 \times 96$

7. $7 \cdot 8 + 6 \cdot 953 =$ _____

8. $\square = 8\,217 - 5\,463$

9. **450 ÷ 9 = _____**

10. **8 × 65 = _____**

11. **2 800 ÷ 7 = _____**

12. **801 − ☐ = 795**

13. $2\,700 \div 3 =$ _____

14. $\frac{2}{7} \times \frac{5}{9} =$ _____

15. $747 \div 9 =$ _____

16. $\frac{3}{16} + \frac{5}{8} =$ _____

17. $0 \cdot 3 \div 10 =$ _____

18. $\frac{1}{3} + \frac{2}{6} + \frac{5}{18} =$ _____

19. $29 \cdot 5 - 16 \cdot 125 =$ _____

20. **Work out**

508 × 74

Show your method.

21. $\frac{1}{8} \div 3 =$ _____

22. $1 + \frac{2}{7} + \frac{5}{7} =$ _____

23. $70 + 48 \div 6 =$ _____

24. $3 \cdot 2 \times 12 =$ _____

25. **Work out**

$$611 \div 47$$

Show your method.

26. **5 746 ÷ 5 = _____**

27. **52% of 700 = _____**

28. $\frac{1}{3}$ **÷ 6 = _____**

29. **Work out**

5 227 × 43

Show your method.

30. **95% of 180 = _____**

31. **0·4 × 37 = _____**

32. **1 − ☐ = $\frac{7}{10}$**

33. **Work out**

$$4\,472 \div 26$$

Show your method.

34. $2\frac{5}{6} - \frac{3}{4} =$ _____

35. 38% of 750 = _____

36. $\frac{2}{3} \times 900 =$ _____

END OF TEST

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Standards & Testing Agency

2023 key stage 2 mathematics
Paper 1: arithmetic
Print version product code: STA/23/8717/MLp ISBN: 978-1-78957-673-3
Electronic PDF version product code: STA/23/8717/MLe ISBN: 978-1-78957-687-0

For more copies

Additional copies of this book are not available during the test window.
They can be downloaded afterwards from
https://www.gov.uk/government/collections/national-curriculum-assessments-practice-materials.

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.

STA/23/8717/MLe ISBN 978-1-78957-687-0

2023 national curriculum tests

Key stage 2

Mathematics

Administering the modified large print (MLP) version of Paper 1: arithmetic

THURSDAY 11 MAY 2023

CONFIDENTIAL: This pack must be kept secure and unopened until the start of the test on **Thursday 11 May 2023**.

Early opening, up to 1 hour before the test starts, is only allowed if access to the contents is needed to make adaptations to meet individual pupils' needs. Early opening of more than 1 hour is only allowed if permission has been granted by STA.

Please ensure you have read and understood the 2023 modified test administration guidance before opening this pack.

Pack contents:

- Administration instructions for the MLP key stage 2 mathematics test Paper 1: arithmetic (overleaf)
- 1 copy of the MLP Paper 1: arithmetic

For test administration

Standards & Testing Agency

Print: STA/23/8748/p ISBN: 978-1-78957-782-2 Electronic: STA/23/8748/e ISBN: 978-1-78957-794-5

2023 Key stage 2 mathematics test

The following information explains how to administer the modified large print (MLP) version of the key stage 2 mathematics test Paper 1: arithmetic. Modified test administration guidance is available at www.gov.uk/sta. If you have any questions, you should check with your headteacher or key stage 2 test co-ordinator before you administer the test.

Please follow these instructions correctly to ensure the test is properly administered. Failure to administer the test correctly could result in a maladministration investigation.

Format

The key stage 2 mathematics test consists of 3 papers. The papers must be administered in order. Pupils can have a break between Paper 1 and Paper 2. Test packs for each test must not be opened until the pupils are in the test room ready to complete the test, unless early opening is required to meet individual pupils' needs.

The scheduled day for the administration of Papers 1 and 2 is Thursday 11 May. The scheduled day for the administration of Paper 3 is Friday 12 May.

Paper 1: arithmetic consists of a single MLP test paper.

Pupils have 30 minutes to complete the paper, plus up to 100% additional time.

You must not refer to the standard test questions when administering this test.

Equipment

Each pupil will need the equipment specified below:

- a dark pencil or blue or black pen

Rubbers are allowed, but please encourage pupils to cross out answers they wish to change instead of rubbing them out. Highlighter pens may be used if this is normal classroom practice.

Pupils may use the following equipment, if this is normal classroom practice:

- technical or electronic vision aids, including low vision aids such as closed-circuit television or JOCR scanners.

Pupils are **not** allowed:

- calculators
- tracing paper
- other mathematical equipment, such as angle measurers or mirrors

Assistance

You must ensure that nothing you say or do during the test could be interpreted as giving pupils an advantage, for example, indicating an answer is correct or incorrect, or suggesting the pupil look at an answer again.

If a pupil requests it, you may read a question to the pupil on a one-to-one basis.

If reading to a pupil, you may only read words and numbers, but not mathematical symbols. This is to ensure that pupils are not given an unfair advantage by having the function inadvertently explained by reading its name.

The example below illustrates how to deal with a common situation:

Question: Do I need to multiply when I calculate 95% of 240?
Answer: I can't tell you, but think hard and try to remember. We can talk about it after the test.

Guidance for specific questions

There is no specific guidance needed to administer the MLP version of Paper 1: arithmetic.

Before the test begins

Review the list of pupils with any particular individual needs, for example, pupils who may need a rest break, a scribe or a transcript made at the end of the test.

Ensure you know how to administer any access arrangements correctly. Please refer to the 2023 key stage 2 access arrangements guidance.

It is important that the pupils' names on their tests match the names on the test attendance register. Check with your test co-ordinator whether any pupil in your group is known by a different name in school, or has changed their name since pupil registration. This is so you can ensure the pupil writes the correct name on their test paper.

Write the school's name and DfE number on a board that is visible to all pupils.

Leave space on the board to write the start and finish times of the test.

What to do at the start of the test

Check that seating is appropriately spaced and that no pupil can see another pupil's test paper.

Check that pupils don't have mobile phones or other disruptive items.

Check that pupils don't have any materials or equipment that may give them extra help.

Ensure each pupil who needs it has one MLP copy of mathematics Paper 1: arithmetic.

Write the start and finish times on a board so that all pupils can see them.

How to introduce the test

It is important to brief pupils fully at the start of each test. Use this script to introduce mathematics Paper 1: arithmetic.

This is the key stage 2 mathematics Paper 1: arithmetic.

You will need a blue or black pen or dark pencil and a ruler.

Write your name, date of birth, school name and DfE number on the front of your mathematics test Paper 1: arithmetic.
[If any pupil's name differs from the name provided during pupil registration, instruct the pupil to write both names on the paper.]

Open your test paper to page 3. I will read the instructions to you.

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

You will have up to 60 minutes to complete this test. This includes your additional time allowance.

Work as quickly and as carefully as you can.

Put your answer on the line or in the box for each question.

All answers should be given as a single value.

For questions expressed as common fractions or mixed numbers, you should give your answer as a common fraction, a mixed number or a whole number as appropriate.

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.

*In this test, long division and long multiplication questions are worth **2 marks** each. You will be awarded 2 marks for a correct answer. You may get 1 mark for showing your method.*

*All other questions are worth **1 mark** each.*

If you want to change your answer, put a line through the response you don't want the marker to read. If you have to use a rubber, make sure you rub out your answer completely before writing a new one.

Remember to check your work carefully.

If you have any questions during the test, you should put your hand up and wait for someone to come to you. Remember, I can't help you answer any of the test questions.

You must not talk to each other.

Are there any questions you want to ask me now?

I will tell you when you have 5 minutes left.

I will tell you when the test is over and to stop writing.

You may now start the test.

How to deal with issues during the test

It is impossible to plan for every scenario. Whatever action you take, pupil safety must always be your first consideration.

In the following circumstances, you will need to stop the test either for an individual pupil, a group of pupils or for the whole cohort:

- test papers are incorrectly collated or the print is illegible
- an incorrect test has been administered
- a fire alarm goes off
- a pupil is unwell
- a pupil needs to leave the room
- a pupil is caught cheating.

If you need to stop the test:

- make a note of the time
- make sure pupils are kept under test conditions and that they are supervised
- if pupils have to leave the room, ensure they do not talk about the test
- speak to your test co-ordinator or a senior member of staff for advice on what to do next
- consider contacting the national curriculum assessments helpline on 0300 303 3013 for further advice.

You should brief your headteacher on how the incident was dealt with, once the test is over.

What to do at the end of the test

If you need to make a transcript of a test script, complete it with the individual pupil at the end of the test, under test conditions. Particular care should be taken to ensure accurate transcriptions are made and the pupil's answers are not corrected or amended.

Ensure you inform your senior member of staff/test co-ordinator if you have made a transcript, or if a pupil has used a scribe, word processor or other electronic or technical device. This is so they can complete the appropriate online notification.

Ensure you have collected every test script, including any unused test materials. Return them immediately to the senior member of staff who is responsible for collating the tests.

Do not look at, review or amend pupils' answers in any way (unless it is necessary to make a transcript). If you tamper with or make changes to pupils' answers, it will be considered maladministration and results could be annulled.

Do not keep or photocopy test scripts for any reason.

All test materials, including any unused test papers, must be stored securely until Monday 22 May.

2023 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.

STA/23/8718/MLe

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Instructions

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

Questions and answers

You 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. **Look at the four times listed below.**

11:55

11:05

11:50

05:11

Write the time from the list that is the same as 5 minutes past 11

2. **Look at the five temperatures below.**

6°C −4°C 1°C −10°C 3°C

Write these temperatures in order, starting with the lowest.

lowest _____ **°C**

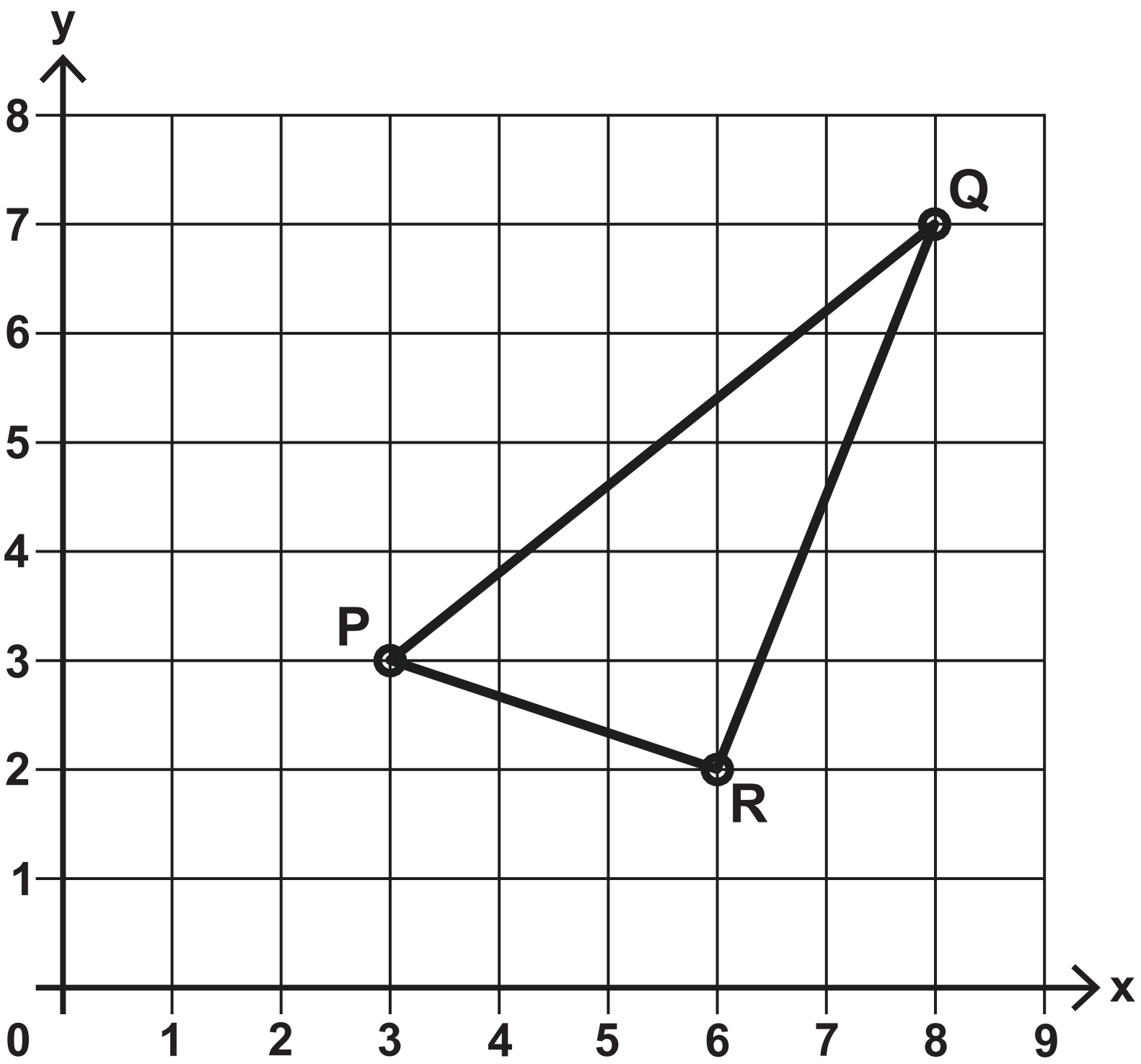
_____ **°C**

_____ **°C**

_____ **°C**

_____ **°C**

3. **Look at the shape on the grid below.**



PQR is a triangle.

What are the coordinates of point R?

(_____ , _____)

4. Some children choose their favourite zoo animal.

The pictogram below shows the results.

Key: ● **stands for 2 children**

Number of children

penguin ● ● ●

elephant ● ● ◗

tiger ● ● ● ● ● ●

giraffe ● ◗

How many more children choose tiger than elephant?

_____

5. Cars and motorbikes are parked in a street.

A car has 4 wheels.

A motorbike has 2 wheels.

Stefan counts 3 motorbikes and 5 cars.

He counts 28 wheels altogether.

Explain why Stefan cannot be correct.

6. Kirsty buys **1** litre of apple juice for **£1·39**

She pays with a **£5** note.

How much change does Kirsty get?

£_____

7. Look at the number sequence below.

75 50 25 _____ _____

Write the next **two** numbers in the sequence.

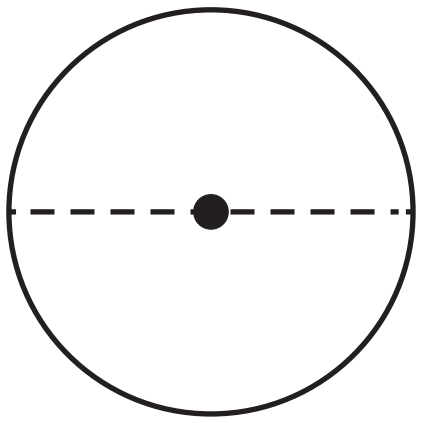
8. In **2012**, there were **24 372** schools in the United Kingdom.

Round the number of schools to the nearest **hundred**.

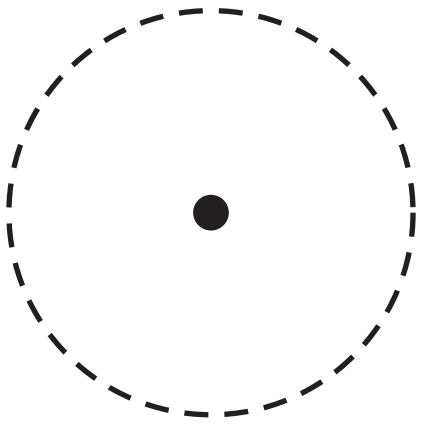
_____

9. Look at the diagrams below showing parts of a circle.

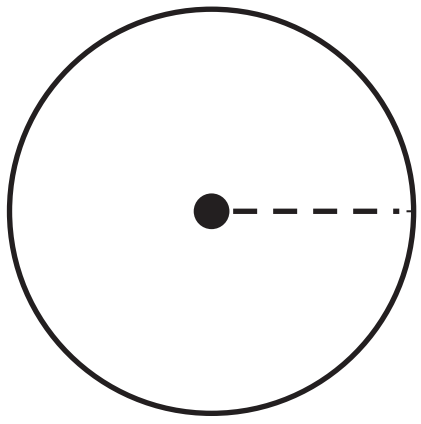
Match each diagram to the name of the dashed line.



circumference



diameter



radius

10. **Ken thinks of a number.**

He divides it by 3

The answer is 72

What number was Ken thinking of?

_____

11. **Write the number that is one thousand more than 19 039**

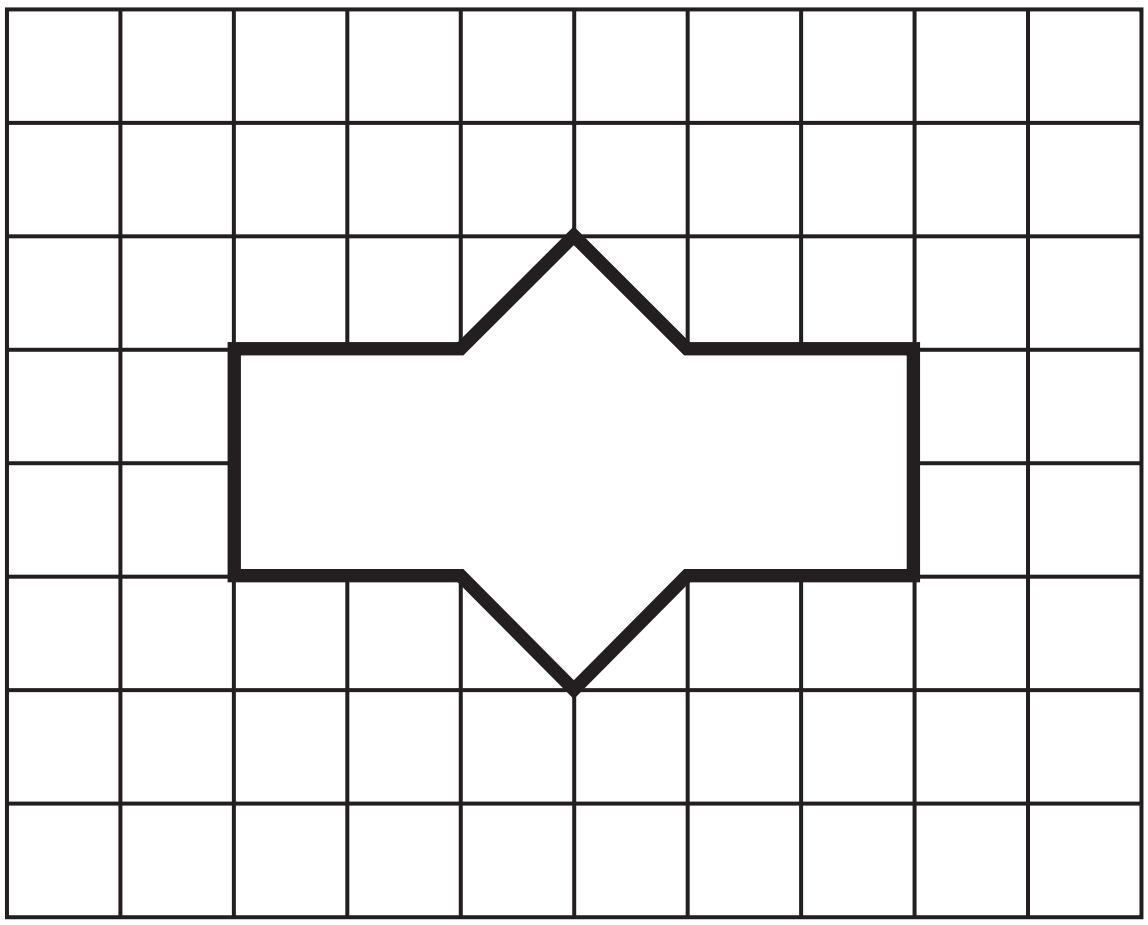
_____

Write the number that is one hundred less than 19 039

_____

12. **You have a cut–out shape for this question.**

Look at the shape on the grid below.



Draw all the lines of symmetry on this shape.

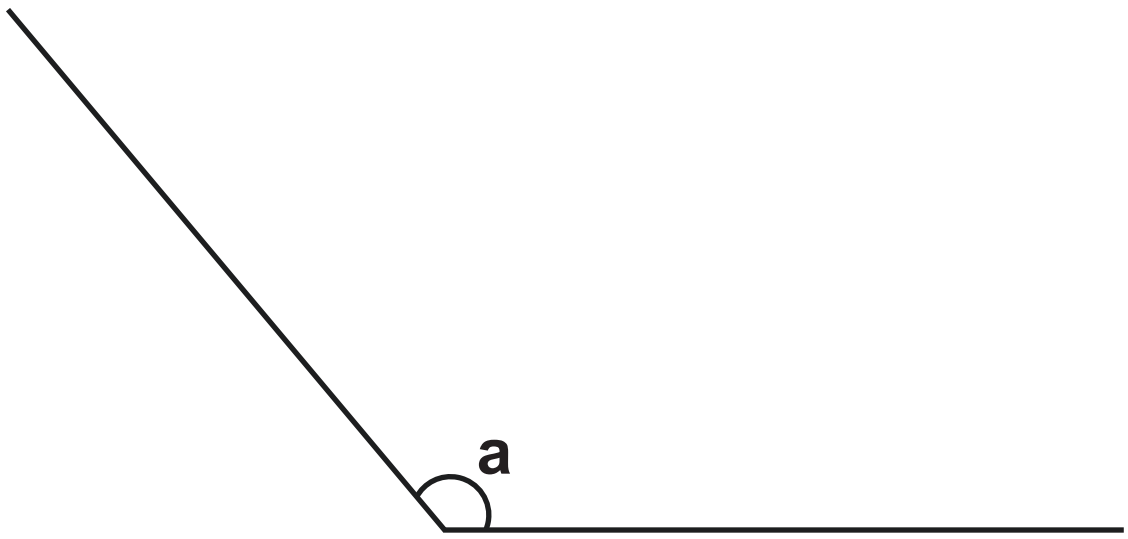
Use a ruler.

13. $\frac{1}{5}$ of a number is 22

What is the number?

_____

14. Look at the angle below.



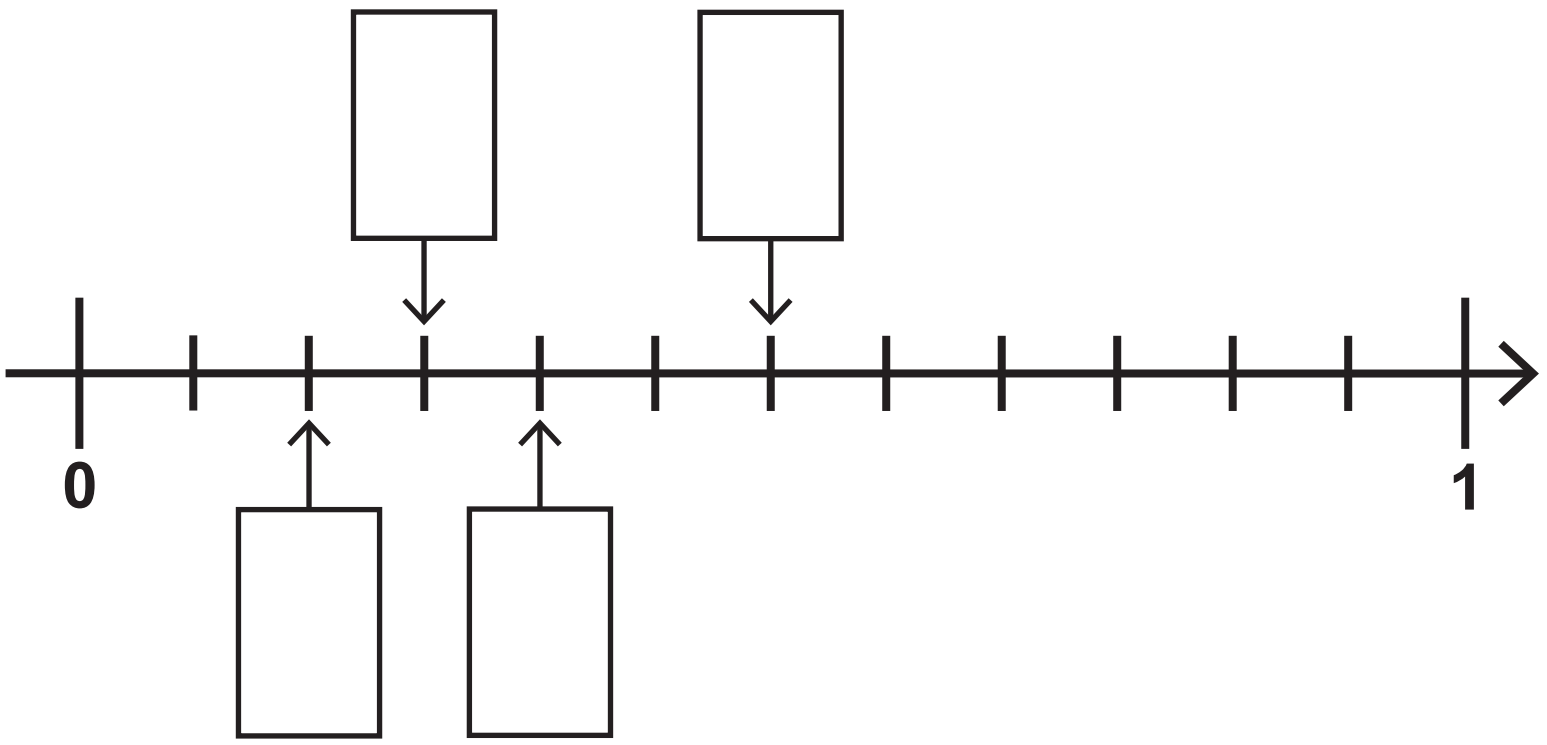
Measure angle a

a is _____°

15. Look at the four fractions below.

$\frac{1}{3}$ $\frac{1}{6}$ $\frac{1}{4}$ $\frac{1}{2}$

Write the correct fractions in the four boxes on the number line below.



16. **One day last year, the rate of rainfall from**

6:30 am until 9:00 am was 2 millimetres per hour.

What was the total rainfall from 6:30 am until 9:00 am?

_____ **mm**

17. The manager of a flower shop orders 4 boxes of red roses.

There are 50 roses in each box.

The manager makes bunches with 6 roses in each bunch.

What is the greatest number of bunches that can be made?

Show your method.

18. A cinema sells tickets at three different prices.

$\frac{1}{20}$ of the tickets are price **A**

$\frac{3}{5}$ of the tickets are price **B**

The rest of the tickets are price **C**

What fraction of the tickets are price **C**?

Show your method.

19. **Write the missing number to make this division correct.**

$$15\,000 \div \square = 75$$

20. **Write the missing numbers to make these two multiplications correct.**

a) $\square \times 3 = 9\,705$

b) $235 \times \square 0 = 11\,750$

21. The height of the tallest person in history is 8 feet 11 inches.

One foot is 30 centimetres

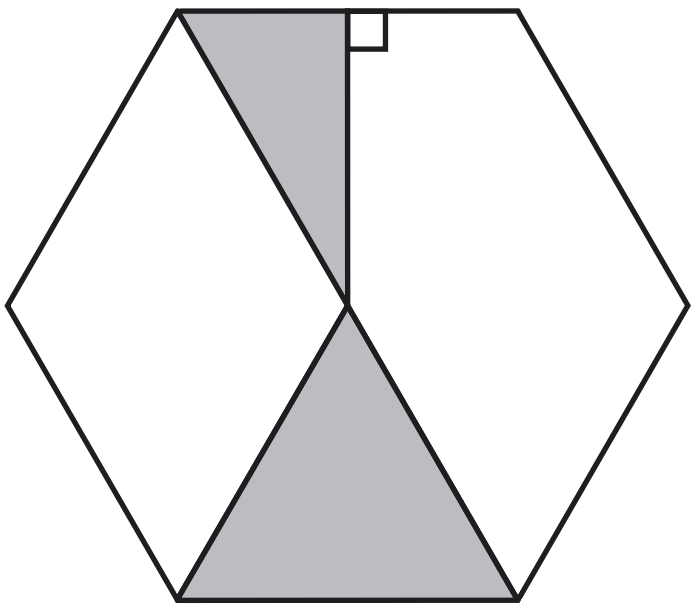
One inch is 2·5 centimetres

Use this information to calculate the height of the tallest person, in centimetres.

Show your method.

_____ cm

22. Look at the regular hexagon below.



The area of the large shaded triangle is double the area of the small shaded triangle.

What fraction of the whole hexagon is the shaded area?

23. A small box contains 650 grams of cereal.

A large box contains 20% more cereal.

One portion of cereal is 40 grams.

How many full portions are in a large box?

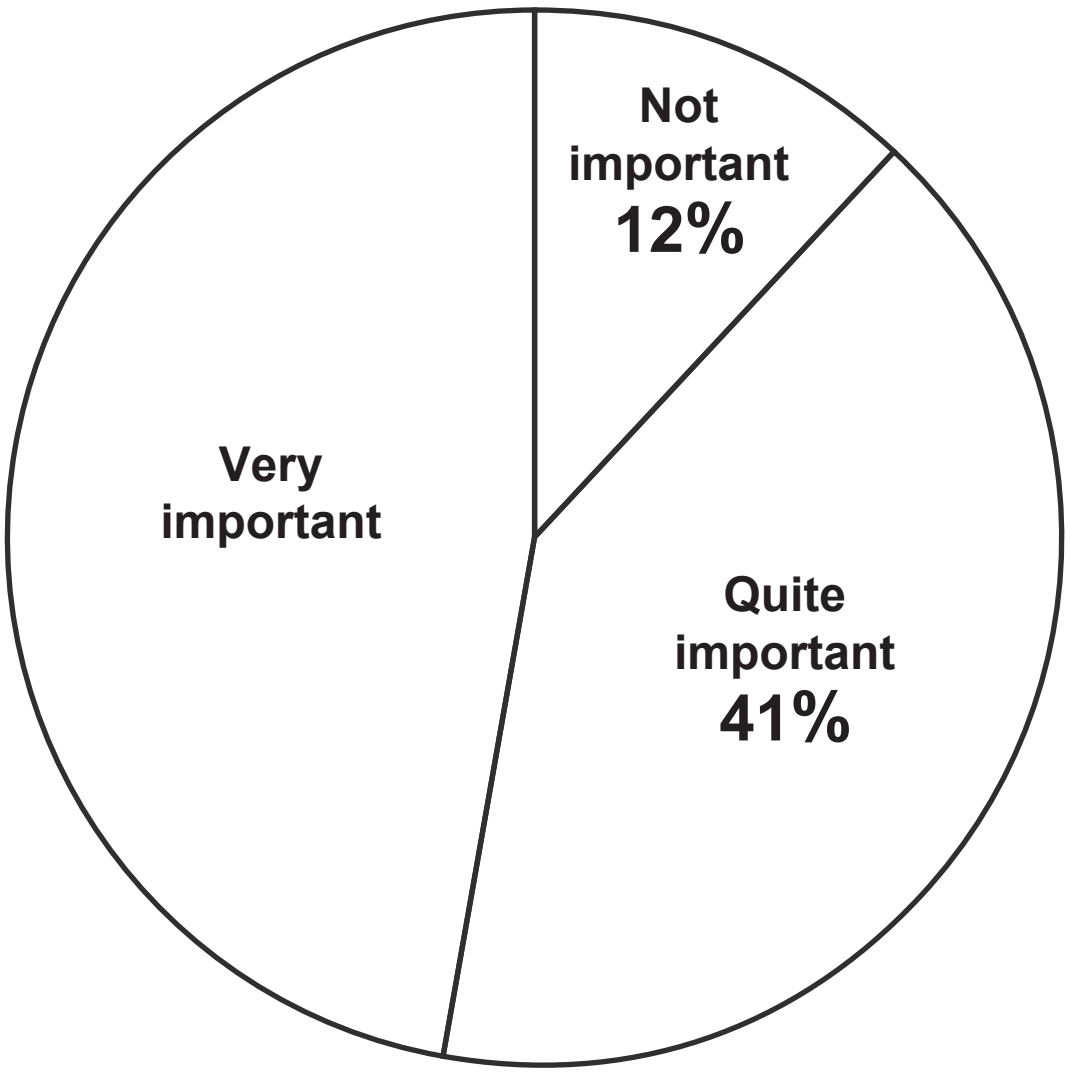
Show your method.

_____ portions

24. **1 200** **pupils were asked this question:**

How important is it to have a break when using a screen?

The chart below shows the results.



How many pupils answered ‘Very important’?

_____ **pupils**

25. There are **25** sheets of paper in a small pack.

There are **500** sheets in a large pack.

a) How many small packs make one large pack?

_____

b) The mass of the paper in the large pack is **2·4** kilograms.

What is the mass of **one sheet** of paper, in **grams?**

Show your method.

_____ **g**

26. **The formula below is used to estimate the mass (in kilograms) of young children.**

$$\text{mass} = 2 \times (\text{age in years} + 5)$$

a) **Stefan's sister is 4 years of age.**

Use the formula to estimate her mass.

_____ **kg**

b) **The mass of Megan's brother is 16 kilograms.**

Use the formula to estimate his age.

_____ **years**

END OF TEST

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Standards & Testing Agency

2023 key stage 2 mathematics
Paper 2: reasoning
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For more copies
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They can be downloaded afterwards from
https://www.gov.uk/government/collections/national-curriculum-assessments-practice-materials.

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.

STA/23/8718/MLe ISBN 978-1-78957-688-7

2023 national curriculum tests

Key stage 2

Mathematics

Administering the modified large print (MLP) version of Paper 2: reasoning

THURSDAY 11 MAY 2023

CONFIDENTIAL: This pack must be kept secure and unopened until the start of the test on **Thursday 11 May 2023**.
Early opening, up to 1 hour before the test starts, is only allowed if access to the contents is needed to make adaptations to meet individual pupils' needs. Early opening of more than 1 hour is only allowed if permission has been granted by STA.

Please ensure you have read and understood the 2023 modified test administration guidance before opening this pack.

Pack contents:

- Administration instructions for the MLP key stage 2 mathematics test Paper 2: reasoning (overleaf)
- 1 copy of the MLP Paper 2: reasoning
- 1 model pack

For test administration

Standards & Testing Agency

Print: STA/23/8749/p ISBN: 978-1-78957-783-9 Electronic: STA/23/8749/e ISBN: 978-1-78957-795-2

2023 Key stage 2 mathematics test

The following information explains how to administer the modified large print (MLP) version of the key stage 2 mathematics test Paper 2: reasoning. Modified test administration guidance is available at www.gov.uk/sta. If you have any questions, you should check with your headteacher or key stage 2 test co-ordinator before you administer the test.

Please follow these instructions correctly to ensure the test is properly administered. Failure to administer the test correctly could result in a maladministration investigation.

Format

The key stage 2 mathematics test consists of 3 papers. The papers must be administered in order. Pupils can have a break between Paper 1 and Paper 2. Test packs for each test must not be opened until the pupils are in the test room ready to complete the test, unless early opening is required to meet individual pupils' needs.

The scheduled day for the administration of Papers 1 and 2 is Thursday 11 May. The scheduled day for the administration of Paper 3 is Friday 12 May.

Paper 2: reasoning consists of a single MLP test paper.

Pupils will have 40 minutes, plus up to 100% additional time, to complete the test paper.

You must not refer to the standard test questions when administering this test.

Equipment

Each pupil will need the equipment specified below:

- a blue/black pen or dark pencil
- a sharp, dark pencil for mathematical drawing
- a ruler (showing centimetres)
- an angle measurer or protractor (Papers 2 and 3 only)
- a mirror (Papers 2 and 3 only)

Rubbers are allowed, but please encourage pupils to cross out answers they wish to change instead of rubbing them out.

Pupils may use the following equipment, if this is normal classroom practice:

- monolingual English electronic spell checkers
- bilingual word lists
- bilingual dictionaries or electronic translators, provided they only give
- word-for-word translations.

Pupils are **not** allowed:

- calculators
- tracing paper

Assistance

You must ensure nothing you say or do during a test could be interpreted as giving pupils an advantage, for example, indicating an answer is correct or incorrect, or suggesting the pupil look at an answer again.

If a pupil requests it, you may read a question to the pupil on a one-to-one basis.

If reading to a pupil, you may only read words and numbers, but not mathematical symbols. This is to ensure pupils are not given an unfair advantage by having the function inadvertently explained by reading its name.

At a pupil's request, you may point to parts of the test paper such as charts, diagrams, statements and equations, but you must not explain the information or help the pupil by interpreting it.

The following examples illustrate how to deal with some common situations:

Question: What does 'quadrilateral' or '>' or '<' mean?
Answer: I can't tell you, but think hard and try to remember. We can talk about it after the test.

Question: What is '0.6'?
Answer: That's nought point six.

You must not explain any subject-specific terminology. If any context or words related to a question are unfamiliar to a pupil, you may show them related objects or pictures, or describe the context.

Guidance for specific questions

There is a shape supplied for **question 12**. Make sure that this is at hand for when the pupil reaches this question.

Before the test begins

Open the pack containing the shape ready for use in question 12.

Review the list of pupils with any particular individual needs, for example, pupils who may need a rest break, a scribe or a transcript made at the end of the test.

Ensure you know how to administer any access arrangements correctly. Please refer to the 2023 key stage 2 access arrangements guidance.

It is important that the pupils' names on their tests match the names on the test attendance register. Check with your test co-ordinator whether any pupil in your group is known by a different name in school, or has changed their name since pupil registration. This is so you can ensure the pupil writes the correct name on their test paper.

Write the school's name and DfE number on a board that is visible to all pupils.

Leave space on the board to write the start and finish times of the test.

What to do at the start of the test

Check that seating is appropriately spaced.

Check that pupils don't have mobile phones or other disruptive items.

Check that pupils don't have any materials or equipment that may give them extra help.

Ensure each pupil who needs it has one MLP copy of mathematics Paper 2: reasoning.

Write the start and finish times on a board so that all pupils can see them.

How to introduce the test

It is important to brief pupils fully at the start of each test. Use this script to introduce mathematics Paper 2: reasoning.

This is the key stage 2 mathematics Paper 2: reasoning.

You will need a blue or black pen, a sharp, dark pencil, a ruler, a protractor and a mirror.

Write your name, date of birth, school name and DfE number on the front of your mathematics test Paper 2: reasoning.
[If any pupil's name differs from the name provided during pupil registration, instruct the pupil to write both names on the paper.]

Open your test paper to page 3. I will read the instructions to you.

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

You have up to 80 minutes to complete the test. This includes 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.

If you want to change your answer, put a line through the answer you don't want the marker to read.

If you want to change a drawing, you should either put a line through the answer you don't want the marker to read, or use a rubber.

If you have to use a rubber, make sure you rub out your answer completely before writing a new one.

Remember to check your work carefully.

If you have any questions during the test, you should put your hand up and wait for someone to come to you. Remember, I can't help you answer any of the test questions.

You must not talk to each other.

Are there any questions you want to ask me now?

I will tell you when you have 5 minutes left.

I will tell you when the test is over and to stop writing.

You may now start the test.

How to deal with issues during the test

It is impossible to plan for every scenario. Whatever action you take, pupil safety must always be your first consideration.

In the following circumstances, you will need to stop the test either for an individual pupil, a group of pupils or for the whole cohort:

- test papers are incorrectly collated or the print is illegible
- an incorrect test has been administered
- a fire alarm goes off
- a pupil is unwell
- a pupil needs to leave the room
- a pupil is caught cheating.

If you need to stop the test:

- make a note of the time
- make sure the pupils are kept under test conditions and that they are supervised
- if the pupils have to leave the room, ensure they do not talk about the test
- speak to your test co-ordinator or a senior member of staff for advice on what to do next
- consider contacting the national curriculum assessments helpline on 0300 303 3013 for further advice.

You should brief your headteacher on how the incident was dealt with, once the test is over.

What to do at the end of the test

If you need to make a transcript of a test script, complete it with the individual pupil at the end of the test, under test conditions. Particular care should be taken to ensure accurate transcriptions are made and the pupil's answers are not corrected or amended.

Ensure you inform your senior member of staff/test co-ordinator if you have made a transcript, or if a pupil has used a scribe, word processor or other electronic or technical device. This is so they can complete the appropriate online notification.

Ensure you have collected every test script, including any unused test materials. Return them immediately to the senior member of staff who is responsible for collating the tests.

Do not look at, review or amend pupils' answers in any way (unless it is necessary to make a transcript). If you tamper with or make changes to pupils' answers, it will be considered maladministration and results could be annulled.

Do not keep or photocopy test scripts for any reason.

All test materials, including any unused test papers, must be stored securely until Monday 22 May.

2023 national curriculum tests

Key stage 2

MATHEMATICS

Modified large print

Paper 3: 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 3.

STA/23/8719/MLe

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Instructions

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

Questions and answers

You 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. **Look at the four digit cards below.**

4	8	2	7

Chen uses three of the cards to make a three-digit number.

Each card can be used only once.

She puts the 4 in the tens place.

Write the lowest three-digit number that Chen could make in the boxes below.

2. Look at the five numbers below.

8 306

80 036

80 306

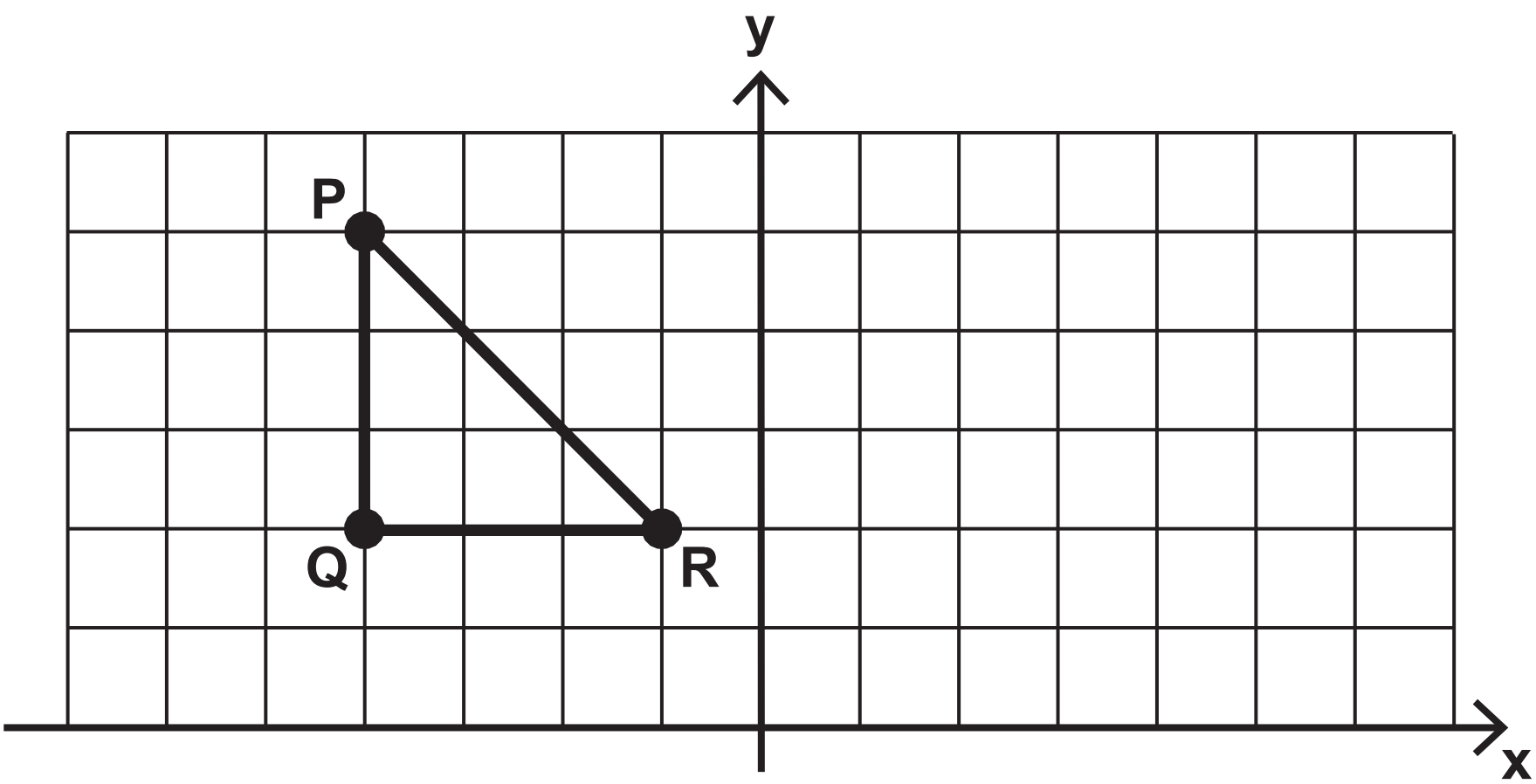
800 306

80 300 006

Tick or mark the number eighty thousand, three hundred and six.

3. **You have a cut-out shape for this question.**

Amina draws triangle PQR on a grid as shown below.



She then reflects the triangle in the y-axis.

Draw the reflected triangle on the grid.

Use a ruler.

4. **Look at the number sequence below.**

1 780 1 880 1 980 _____ _____

Write the next two numbers in this sequence.

5. **Look at the five decimals below.**

13·2 14·7 15·9 16·3 17·6

Tick or mark the two decimals that round to the same whole number.

6. **Write the missing number to make the calculation below correct.**

1 300 450 = 1 000 000 + ☐ + 400 + 50

7. **Look at the number square below.**

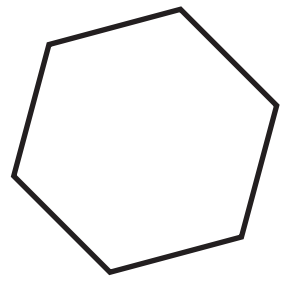
Part of the number square is missing.

$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$
3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5
	6	$6\frac{1}{2}$	7	$7\frac{1}{2}$
		9	$9\frac{1}{2}$	10
			12	$12\frac{1}{2}$

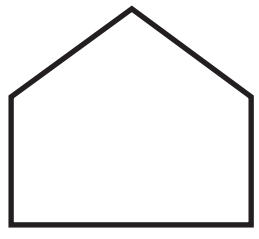
What number should be in the bottom-left corner of the number square?

_____

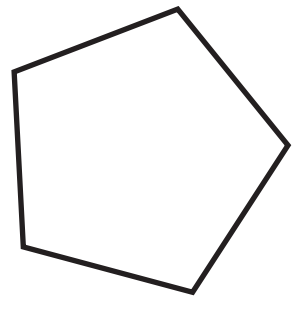
8. Match each shape to the correct name.



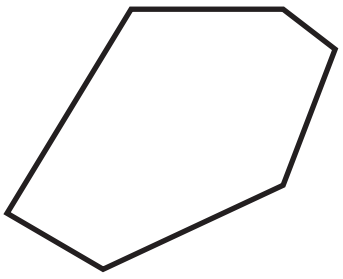
irregular pentagon



regular hexagon



regular pentagon



irregular hexagon

9. **Jack says he multiplied a whole number by 3 and his answer was 32**

Explain why Jack is not correct.

10. **Write the missing square number to make the addition below correct.**

$$8^2 + \_\_\_\_\_^2 = 73$$

11. **At the start of April, a shop had 15 000 games.**

The shop sold:

7 918 games in April

4 624 games in May.

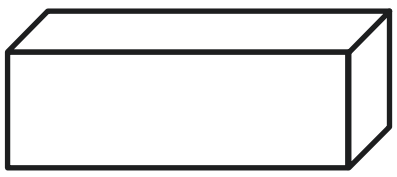
How many games did the shop have left at the end of May?

Show your method.

_____ games

12. You have a model and four cut-out shapes for this question.

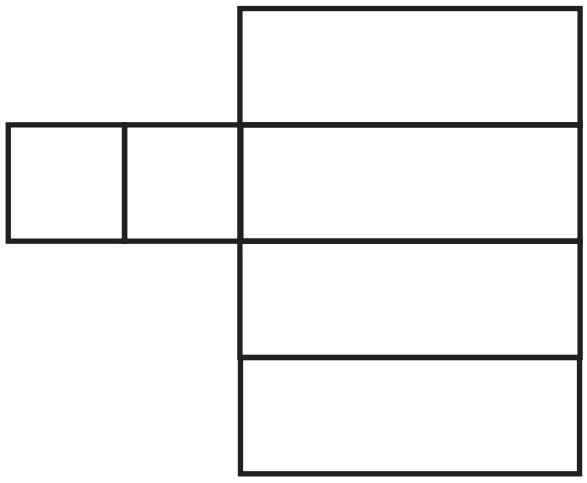
Look at the drawing of a cuboid below.



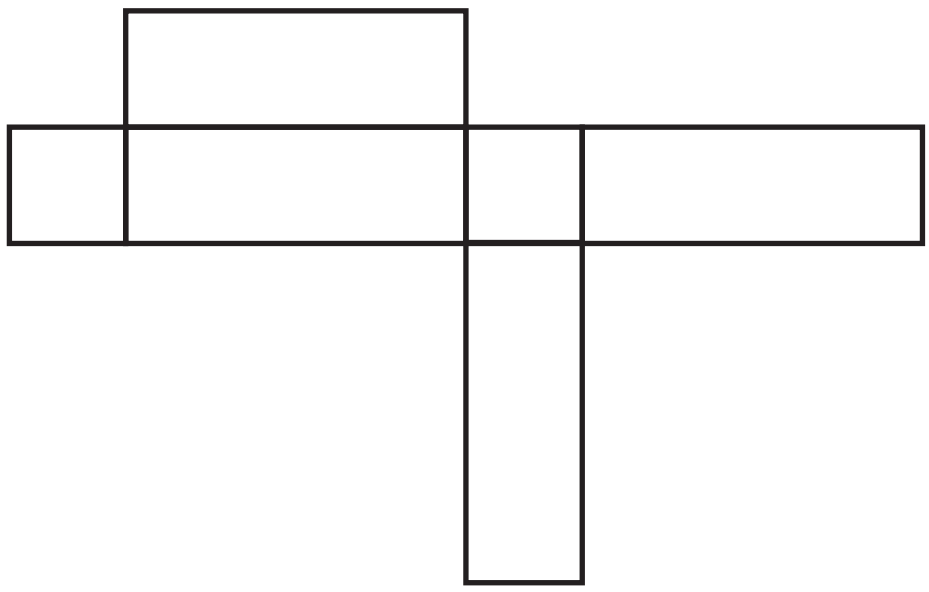
Now look at the nets on the opposite page.

Write the letters of all the nets that could make the cuboid.

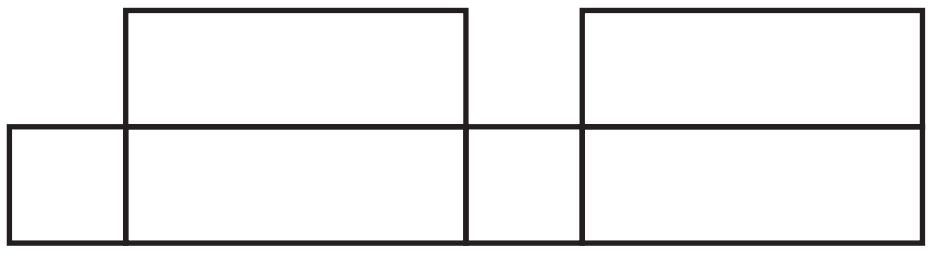
P



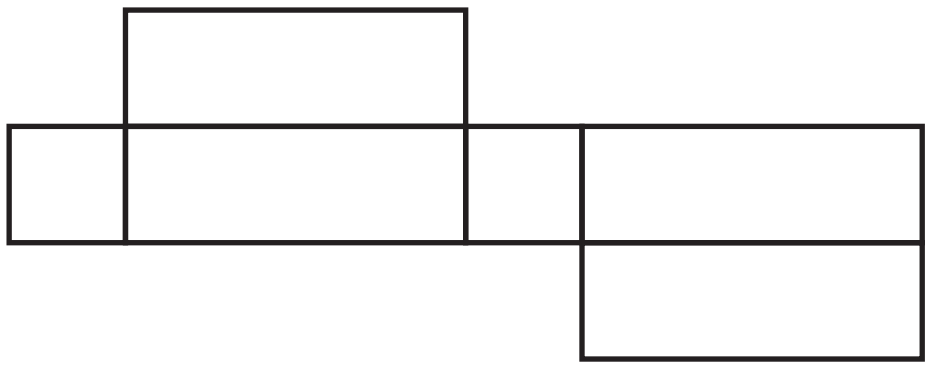
Q



R



S



13. **Write the missing number to make the calculation below correct.**

$$754 \times 6 + 754 \times 3 = 754 \times \square$$

14. **Look at the five digit cards below.**

1	2	3	4	5

Use two cards to make a fraction equivalent to 25%

$$\frac{\square}{\square}$$

Use two cards to make a fraction equivalent to 0·4

$$\frac{\square}{\square}$$

15. Amina went to a concert one evening.

a) It took her an hour and twenty minutes to get there from home.

She arrived at ten past seven.

At what time did she leave home?

_____

b) The concert started at 7:20 pm.

It finished at 9:05 pm.

How long did the concert last?

_____ hours _____ minutes

16. A box of 24 chocolate eggs has a mass of 870 grams.

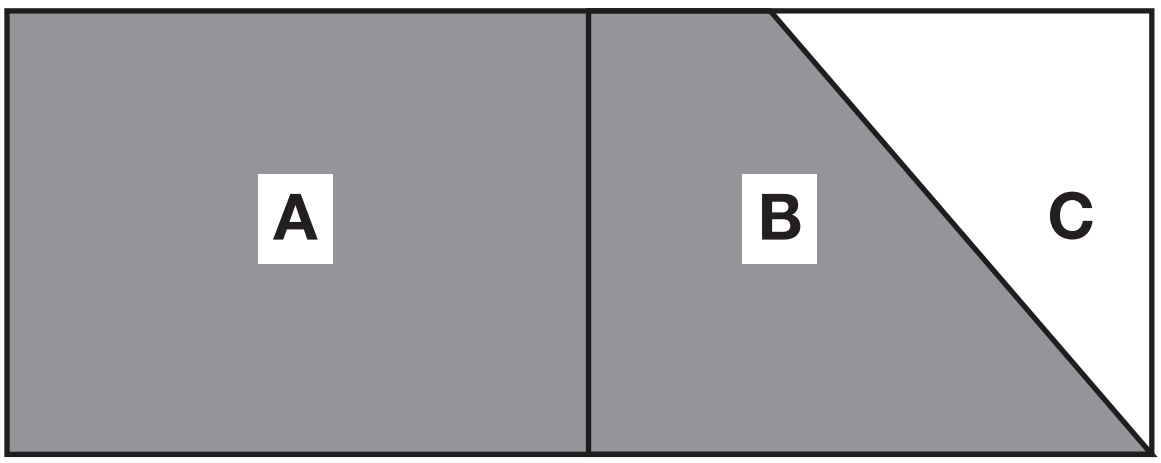
The empty box has a mass of 30 grams.

What is the mass of one chocolate egg in grams?

Show your method.

_____ g

17. Look at the rectangle below. It is not to scale.



The rectangle is divided into three parts.

Part **A** is $\frac{1}{2}$ of the area of the rectangle.

Part **B** is $\frac{1}{3}$ of the area of the rectangle.

What fraction of the area of the rectangle is shaded?

18. The table below shows the total rainfall and sunshine each year at Heathrow Airport from **2011** to **2015**.

Year	Rainfall in mm	Sunshine in hours
2011	509	1 540
2012	700	1 503
2013	560	1 452
2014	864	1 669
2015	562	1 508

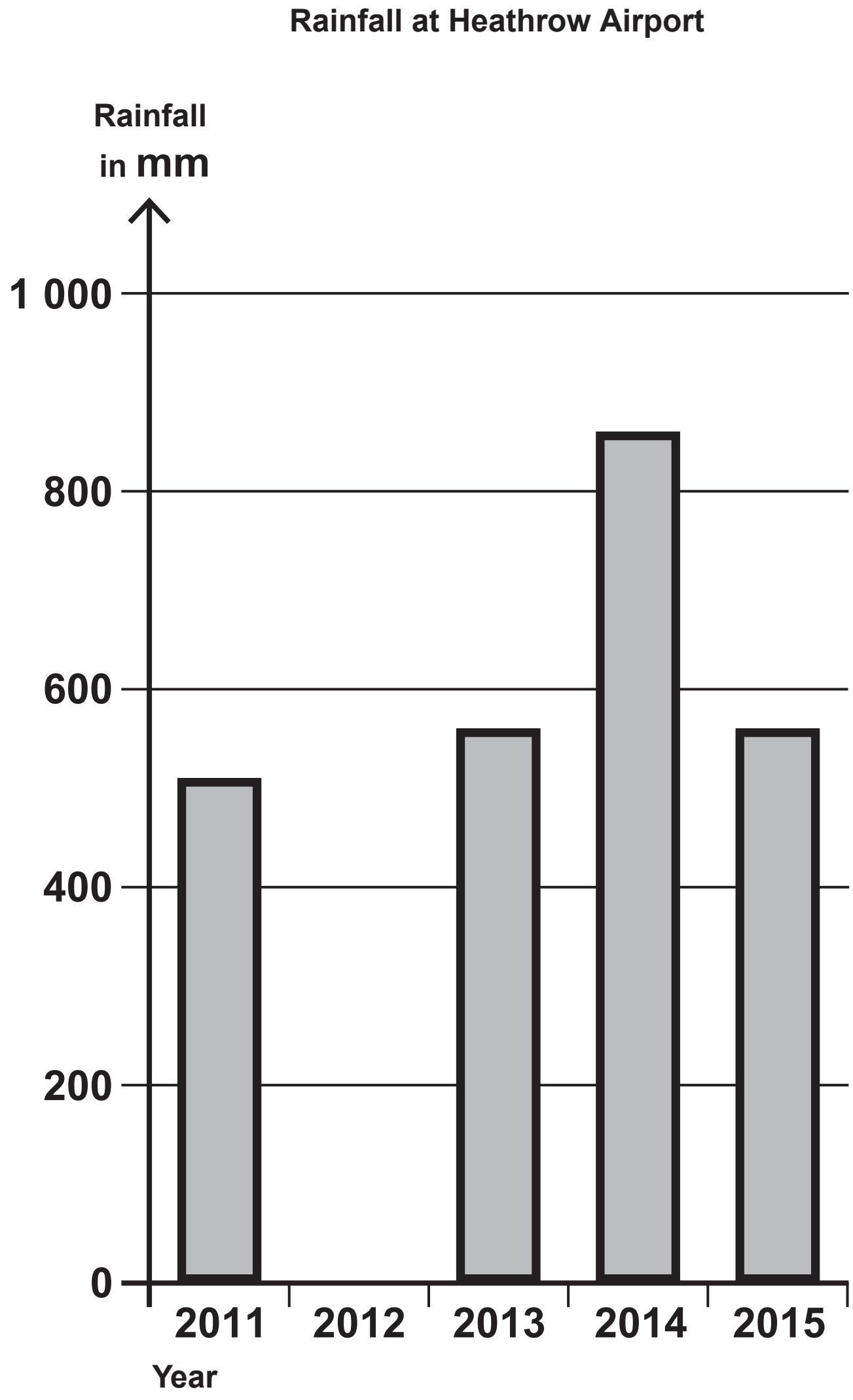
a) Use the table to calculate the mean hours of sunshine for Heathrow Airport from **2013** to **2015**.

Show your method.

_____ **hours**

b) Use the table to complete the graph below.

Use a ruler.



19. **These are the prices of some vegetables in a shop.**

Mushrooms cost £3·20 for 1 kg

Carrots cost 60p for 1 kg

Layla buys 500 grams of mushrooms and $1\frac{1}{4}$ kg of carrots.

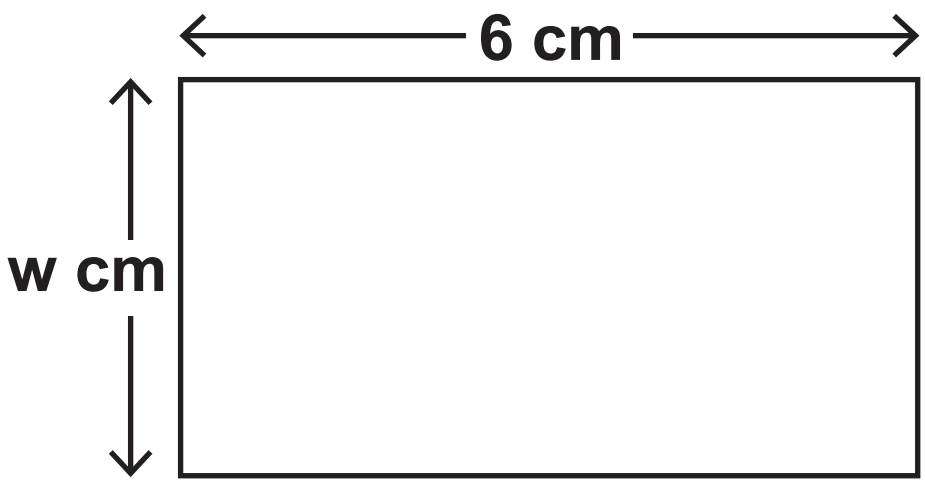
She pays with a £5 note.

How much change does Layla get?

Show your method.

£_____

20. Look at the rectangle below. It is not to scale.



The length is 6 cm.

The width is w cm.

Tick or mark all the methods below that can be used to work out the perimeter of the rectangle.

w × 6	**w × 2 + 12**
2 × (w + 6)	**6 + w + 6 + w**

21. There are **25** classes in a school.

Each class has **34** pupils.

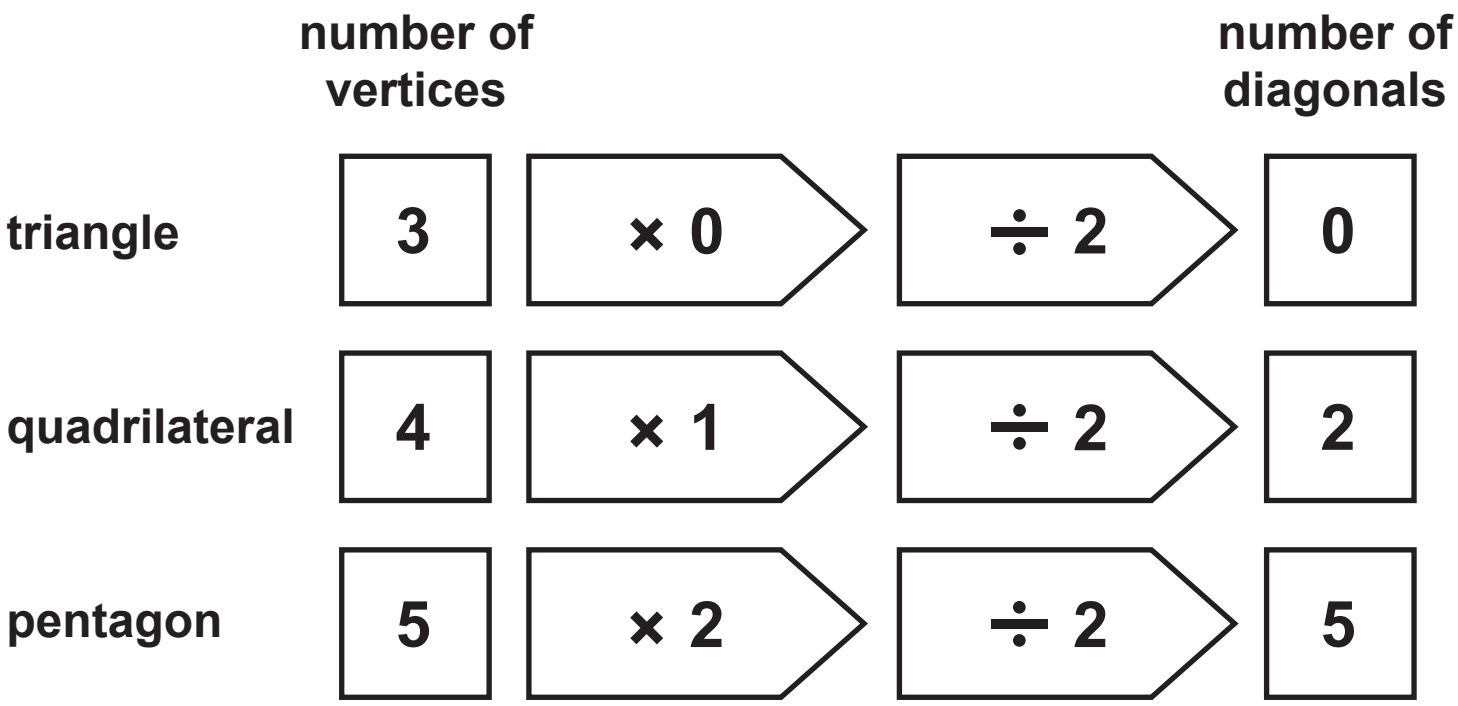
62% of all the pupils play a sport after school.

What number of pupils do not play a sport?

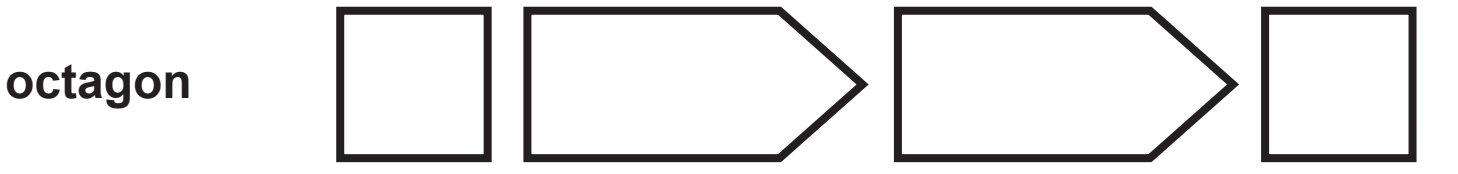
Show your method.

_____ pupils

22. **Megan uses the number machines below to calculate how many diagonals different shapes have.**



Complete the number machine for the octagon in the boxes below.



23. **Look at the table below.**

Write the two missing decimals in the empty boxes.

One has been done for you.

a	b	$\frac{a}{b}$
1	4	0·25
3	20	
5	8	

END OF TEST

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L 0 0 0 1 4 0 A 0 1 2 8

Standards & Testing Agency

2023 key stage 2 mathematics
Paper 3: reasoning
Print version product code: STA/23/8719/MLp ISBN: 978-1-78957-675-7
Electronic PDF version product code: STA/23/8719/MLe ISBN: 978-1-78957-689-4

For more copies

Additional copies of this modified large print test paper can be ordered by contacting the national curriculum helpline on 0300 303 3013

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.

2023 national curriculum tests

Key stage 2

Mathematics

Administering the modified large print (MLP) version of Paper 3: reasoning

FRIDAY 12 MAY 2023

CONFIDENTIAL: This pack must be kept secure and unopened until the start of the test on **Friday 12 May 2023**.

Early opening, up to 1 hour before the test starts, is only allowed if access to the contents is needed to make adaptations to meet individual pupils' needs. Early opening of more than 1 hour is only allowed if permission has been granted by STA.

Please ensure you have read and understood the 2023 modified test administration guidance before opening this pack.

Pack contents:

- Administration instructions for the MLP key stage 2 mathematics test Paper 3: reasoning (overleaf)
- 1 copy of the MLP Paper 3: reasoning
- Model packs for question 3 and question 12

For test administration

Standards & Testing Agency

Print: STA/23/8750/p ISBN: 978-1-78957-784-6 Electronic: STA/23/8750/e ISBN: 978-1-78957-796-9

2023 Key stage 2 mathematics test

The following information explains how to administer the modified large print (MLP) version of the key stage 2 mathematics test Paper 3: reasoning. Modified test administration guidance is available at www.gov.uk/sta. If you have any questions, you should check with your headteacher or key stage 2 test co-ordinator before you administer the test.

Please follow these instructions correctly to ensure the test is properly administered. Failure to administer the test correctly could result in a maladministration investigation.

Format

The key stage 2 mathematics test consists of 3 papers. The papers must be administered in order. Pupils can have a break between the papers. Test packs for each test must not be opened until the pupils are in the test room ready to complete the test, unless early opening is required to meet individual pupils' needs.

The scheduled day for the administration of Paper 3 is Friday 12 May.

Paper 3: reasoning consists of a single MLP test paper.

Pupils will have 40 minutes to complete the paper, plus up to 100% additional time.

You must not refer to the standard test questions when administering this test.

Equipment

Each pupil will need the equipment specified below:

- a dark pencil or blue or black pen
- a sharp, dark pencil for mathematical drawing
- a ruler (showing centimetres)
- the model supplied for **Q3** and the model and nets provided for **Q12**
- an angle measurer or protractor (papers 2 and 3 only)
- a mirror (papers 2 and 3 only)

Rubbers are allowed, but please encourage pupils to cross out answers they wish to change instead of rubbing them out. Highlighter pens may be used if this is normal classroom practice.

Pupils may use the following equipment, if this is normal classroom practice:

- technical or electronic vision aids, including low vision aids such as closed-circuit television or JOCR scanners.
- monolingual English electronic spell checkers
- bilingual word lists
- bilingual dictionaries or electronic translators provided they only give word-for-word translations

Pupils are **not** allowed:

- calculators
- tracing paper

Assistance

You must ensure that nothing you say or do during a test could be interpreted as giving pupils an advantage, for example, indicating an answer is correct or incorrect, or suggesting the pupil look at an answer again.

If a pupil requests it, you may read a question to the pupil on a one-to-one basis.

If reading to a pupil, you may only read words and numbers, but not mathematical symbols. This is to ensure pupils are not given an unfair advantage by having the function inadvertently explained by reading its name.

At a pupil's request, you may point to parts of the test paper such as charts, diagrams, statements and equations, but you must not explain the information or help the pupil by interpreting it.

The following examples illustrate how to deal with some common situations:

Question: What does 'quadrilateral' or '>' or '<' mean?
Answer: I can't tell you, but think hard and try to remember. We can talk about it after the test.

Question: What is '0.6'?
Answer: That's nought point six.

You must not explain any subject-specific terminology. If any context or words related to a question are unfamiliar to a pupil, you may show them related objects or pictures, or describe the context.

Guidance for specific questions

There are shapes supplied for **questions 3** and **12**. Make sure that they are at hand for when the pupil reaches these questions.

Before the test begins

Review the list of pupils with any particular individual needs, for example, pupils who may need a rest break, a scribe or a transcript made at the end of the test.

Ensure you know how to administer any access arrangements correctly. Please refer to the 2023 key stage 2 access arrangements guidance.

It is important that the pupils' names on their tests match the names on the test attendance register. Check with your test co-ordinator whether any pupil in your group is known by a different name in school, or has changed their name since pupil registration. This is so you can ensure the pupil writes the correct name on their test paper.

Write the school's name and DfE number on a board that is visible to all pupils.

Leave space on the board to write the start and finish times of the test.

What to do at the start of the test

Check that seating is appropriately spaced.

Check that pupils don't have mobile phones or other disruptive items.

Check that pupils don't have any materials or equipment that may give them extra help.

Ensure each pupil who needs it has one MLP copy of mathematics Paper 3: reasoning.

Write the start and finish times on a board so that all the pupils can see them.

How to introduce the test

It is important to brief pupils fully at the start of each test. Use this script to introduce mathematics Paper 3: reasoning.

This is the key stage 2 mathematics Paper 3: reasoning.

You will need a blue or black pen, a sharp, dark pencil, a ruler, a protractor and a mirror.

Write your name, date of birth, school name and DfE number on the front of your mathematics test Paper 3: reasoning.
[If any pupil's name differs from the name provided during pupil registration, instruct the pupil to write both names on the paper.]

Open your test paper to page 3. I will read the instructions to you.

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

You have up to 80 minutes to complete this test. This includes 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.

If you want to change your answer, put a line through the response you don't want the marker to read.

If you want to change a drawing, you should either put a line through the response you don't want the marker to read, or use a rubber.

If you have to use a rubber, make sure you rub out your answer completely before writing a new one.

Remember to check your work carefully.

If you have any questions during the test, you should put your hand up and wait for someone to come to you. Remember, I can't help you answer any of the test questions.

You must not talk to each other.

Are there any questions you want to ask me now?

I will tell you when you have 5 minutes left.

I will tell you when the test is over and to stop writing.

You may now start the test.

How to deal with issues during the test

It is impossible to plan for every scenario. Whatever action you take, pupil safety must always be your first consideration.

In the following circumstances, you will need to stop the test either for an individual pupil, a group of pupils or for the whole cohort:

- test papers are incorrectly collated or the print is illegible
- an incorrect test has been administered
- a fire alarm goes off
- a pupil is unwell
- a pupil needs to leave the room
- a pupil is caught cheating.

If you need to stop the test:

- make a note of the time
- make sure the pupils are kept under test conditions and that they are supervised
- if the pupils have to leave the room, ensure they do not talk about the test
- speak to your test co-ordinator or a senior member of staff for advice on what to do next
- consider contacting the national curriculum assessments helpline on 0300 303 3013 for further advice.

You should brief your headteacher on how the incident was dealt with, once the test is over.

What to do at the end of the test

If you need to make a transcript of a test script, complete it with the individual pupil at the end of the test, under test conditions. Particular care should be taken to ensure accurate transcriptions are made and the pupil's answers are not corrected or amended.

Ensure you inform your senior member of staff/test co-ordinator if you have made a transcript, or if a pupil has used a scribe, word processor or other electronic or technical device. This is so they can complete the appropriate online notification.

Ensure you have collected every test script, including any unused test materials. Return them immediately to the senior member of staff who is responsible for collating the tests.

Do not look at, review or amend pupils' answers in any way (unless it is necessary to make a transcript). If you tamper with or make changes to pupils' answers, it will be considered maladministration and results could be annulled.

Do not keep or photocopy test scripts for any reason.

All test materials, including any unused test papers, must be stored securely until Monday 22 May.

2023 national curriculum tests
Key stage 2

Mathematics
Amendments to the mark schemes (AMS)

Modified large print (MLP) and Braille

Standards & Testing Agency

Introduction

This guidance details the amendments made to the mark schemes for questions which have been adapted, or replaced, in the modified large print (MLP) version of the key stage 2 mathematics test materials.

This guidance must be used in conjunction with the standard version of the key stage 2 mathematics mark schemes. Refer to the standard mark schemes when marking the MLP test papers unless an alternative is given in this guidance.

Amendments to the mark scheme MLP

Amendments to the standard test mark schemes are only provided where amendments to a question are such that the question cannot be marked using the standard test mark scheme.

Amendments to the mark schemes are not provided where the only change has been to further divide the question into subsections or where the layout of the question is different.

The mark schemes have been amended in some respects for the following questions:

Paper 1	20, 25, 29, 33
Paper 2	1, 9, 14, 20
Paper 3	3, 7, 8, 12, 18a, 18b

General guidance to be applied throughout the MLP papers

- You should make every effort to understand what the pupil has written in an answer, without reading into the answer anything that the pupil did not intend.

- Some pupils with visual impairment find it difficult to get their answers across clearly. It may take you longer to read their answers. Apply the mark schemes, but be sympathetic to their difficulties.

- Pupils with visual impairment find it difficult to draw accurately. Often thick pens or pencils are used by these pupils. You should make every effort to be fair in marking these questions and take into account what appears to be the pupil's intention.

- Unless otherwise indicated in this document, there should be an increased tolerance level for all drawing and measuring. In general, pupils will only be expected to measure lengths to the nearest 0.5 cm and angles to the nearest 5°.

- If children have missed any answer lines or spaces within the text, their answers may be elsewhere on the page. Any unambiguous indication of the correct answer should be credited, working within the parameters of the mark scheme.

- Questions that appear as horizontal tick boxes in the standard version of the test may have been changed to vertical in the MLP version, in order to make it easier for pupils to track across the page. The correct answer will be the same as in the standard mark schemes.

- Markers should contact their supervisors if they have any problems applying the mark schemes to MLP scripts, or with specific responses. All supervisors have contact details of markers who will provide specialist advice.

- Accept numbers greater than 999 written without a comma, with space instead of a comma or with any clear indication.

- Please note that due to modifications to question 1 in paper 2, the National Curriculum Reference (NCR) has changed for the MLP version of this question. The primary NCR for Q1 for MLP Paper 2 is 4M4b. There is a mark scheme amendment for this question.

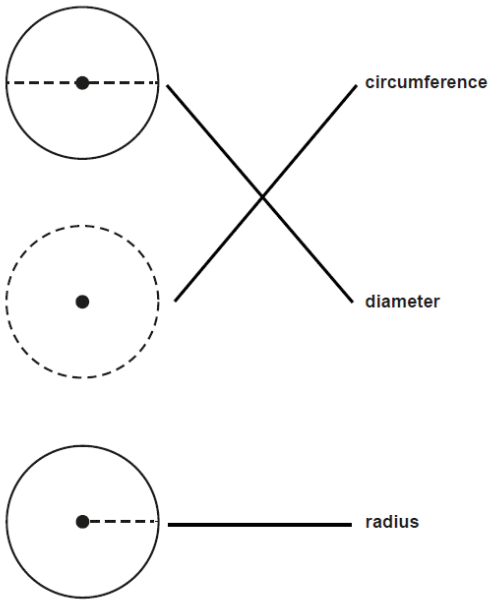
- Please note that due to modifications to question 20 in paper 2, the National Curriculum Reference (NCR) has changed for the MLP version of this question. The primary NCR for Q20 for MLP Paper 2 is 6C8. There is a mark scheme amendment for this question.

Amendments to mark schemes for Paper 1: arithmetic

Please use the standard mark schemes to mark Paper 1: arithmetic.

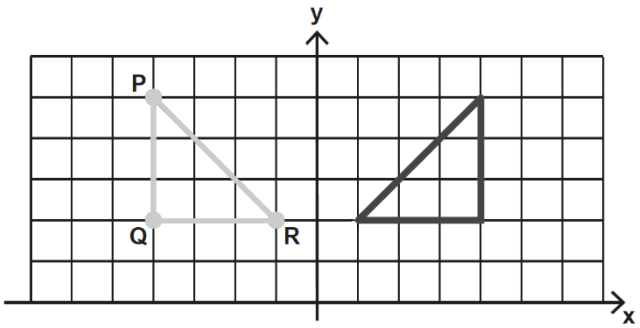
For questions 20, 25, 29 and 33 the standard mark schemes expect a ‘formal method’ for long multiplication or long division. If the answer is incorrect, visually impaired pupils should be credited the method mark if they have used **any** appropriate method with no more than **ONE** arithmetic error; a formal method is not required. Working must be carried through to reach a final answer for the award of **ONE** mark.

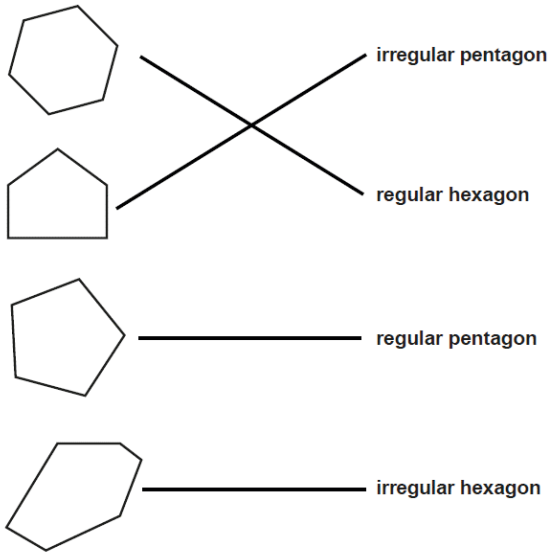
Amendments to mark schemes for Paper 2: reasoning (MLP)

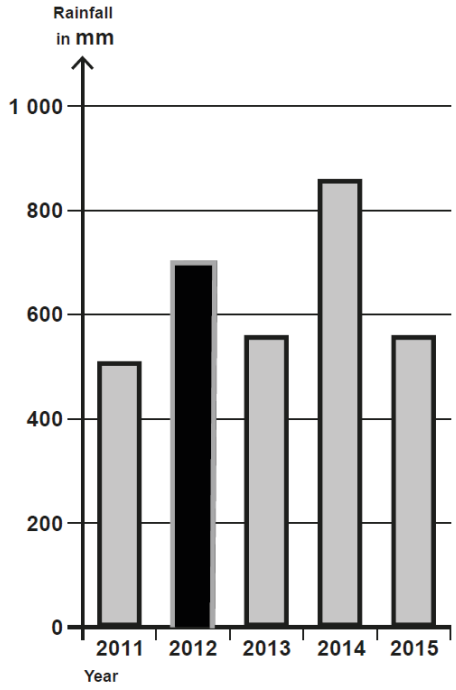
Qu.	Requirement	Mark	Additional guidance
1	11:05	**1m**	Award **ONE** mark for the correct time selected. Accept alternative unambiguous positive indication of the correct answer.
9	Award **ONE** mark for three names matched correctly, as shown:  	**1m**	Lines need not touch the names and diagrams, provided the intention is clear. **Do not** accept a circle matched to more than one label.

Qu.	Requirement	Mark	Additional guidance
14	Award **ONE** mark for an answer in the range of 125° to 135° inclusive.	**1m**	
20	Award **ONE** mark for each correct answer. a) 3 b) 5	**Up to 2m**	Accept the sum rewritten with the correct missing digits.

Amendments to mark schemes for Paper 3: reasoning (MLP)

Qu.	Requirement	Mark	Additional guidance
3	Diagram completed, as shown:  	**1m**	Ignore any attempt to label the reflected triangle. Accept slight inaccuracies in drawing, provided the intention is clear.
7	$10\frac{1}{2}$ **OR** $\frac{1}{2}$ | 1 | $1\frac{1}{2}$ | 2 | $2\frac{1}{2}$ 3 | $3\frac{1}{2}$ | 4 | $4\frac{1}{2}$ | 5 | 6 | $6\frac{1}{2}$ | 7 | $7\frac{1}{2}$ | | 9 | $9\frac{1}{2}$ | 10 $10\frac{1}{2}$ | | | 12 | $12\frac{1}{2}$	**1m**	Also accept equivalent decimal answers, e.g. 10.5 or 10.50. Accept correct answers written in the correct place on the grid.

Qu.	Requirement	Mark	Additional guidance
8	Award **ONE** mark for the four shapes matched correctly, as shown:  	**1m**	Lines need not touch the shapes and names, provided the intention is clear. **Do not** accept any shape that has been matched to more than one name.
12	Award **TWO** marks for two correctly identified nets: Q and S If the answer is incorrect, award **ONE** mark for: the two correct letters and one incorrect letter **OR** one correct letter and no incorrect letters	**Up to 2m**	Accept alternative unambiguous positive indication of the correct answer.

Qu.	Requirement	Mark	Additional guidance
18a	Award **TWO** marks for the correct answer of 1,543. If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g. • 1,452 + 1,669 + 1,508 = 4,629 4,629 ÷ 3 **OR** • 1,452 + 1,669 + 1,508 = 4619 (error) 4619 ÷ 3 **OR** Award **ONE** mark for sight of 4629 (as evidence of the sum of sunshine hours).	**Up to 2m**	Answer need not be obtained or rounded for the award of **ONE** mark. Any acceptable rounding or truncating does not negate an appropriate method. Any value which does not result from correct rounding or truncating implies an additional step not shown.
18b	Award **ONE** mark for drawing the bar in the range of 650 mm to 750 mm, e.g.  	**1m**	Ignore the width of the bar.

2023 national curriculum tests
Key stage 2

Mathematics
Amendments to the mark schemes (AMS)

Braille

Standards & Testing Agency

Introduction

This guidance details the amendments made to the mark schemes for questions which have been adapted, or replaced, in the braille version of the key stage 2 mathematics test materials.

The standard version of the key stage 2 mathematics mark schemes, should be used in conjunction with the additional guidance in this document. Markers should refer to the standard mark schemes when marking the braille test papers unless an alternative is given in this guidance.

Amendments to the mark scheme Braille

Amendments to the standard test mark schemes are only provided where amendments to a question are such that the question cannot be marked using the standard test mark scheme.

Amendments to the mark schemes are not provided where the only change has been to further divide the question into subsections or where the layout of the question is different.

The mark schemes have been amended in some respects for the following questions:

Paper 1	20, 25, 29, 33
Paper 2	1, 9, 14, 15, 20
Paper 3	2, 3, 7, 8, 12, 18a, 20, 22, 23

General guidance to be applied throughout the braille papers

- You should make every effort to understand what the pupil has written in an answer, without reading into the answer anything that the pupil did not intend.
- Some pupils with visual impairment find it difficult to get their answers across clearly. It may take you longer to read their answers. Apply the mark schemes, but be sympathetic to their difficulties.
- Pupils with visual impairment find it difficult to draw accurately. Often thick pens or pencils are used by these pupils. You should make every effort to be fair in marking these questions and take into account what appears to be the pupil's intention.
- Unless otherwise indicated in this document, there should be an increased tolerance level for all drawing and measuring. In general, pupils will only be expected to measure lengths to the nearest 0.5 cm and angles to the nearest 5°.
- Any unambiguous indication of the correct answer should be credited.
- Some braille questions are asked differently to the standard version, but the differences are sufficiently small that you should still be able to apply the standard mark scheme, for example, pupils are asked to write rather than circle the answer.
- Accept numbers greater than 999 written without a comma, with space instead of a comma or with any clear indication.
- Please note that due to modifications to question 1 in paper 2, the National Curriculum Reference (NCR) has changed for the Braille version of this question. The primary NCR for Q1 for Braille Paper 2 is 4M4b. There is a mark scheme amendment for this question.
- Please note that due to modifications to question 20 in paper 2, the National Curriculum Reference (NCR) has changed for the Braille version of this question. The primary NCR for Q20 for Braille Paper 2 is 6C8. There is a mark scheme amendment for this question.

Amendments to mark schemes for Paper 1: arithmetic

Please use the standard mark schemes to mark Paper 1: arithmetic.

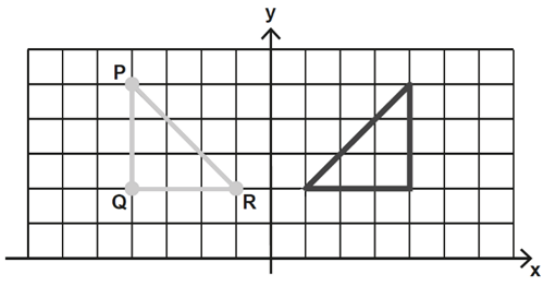
For questions 20, 25, 29 and 33 the standard mark schemes expect a ‘formal method’ for long multiplication or long division. If the answer is incorrect, visually impaired pupils should be credited the method mark if they have used **any** appropriate method with no more than **ONE** arithmetic error; a formal method is not required. Working must be carried through to reach a final answer for the award of **ONE** mark.

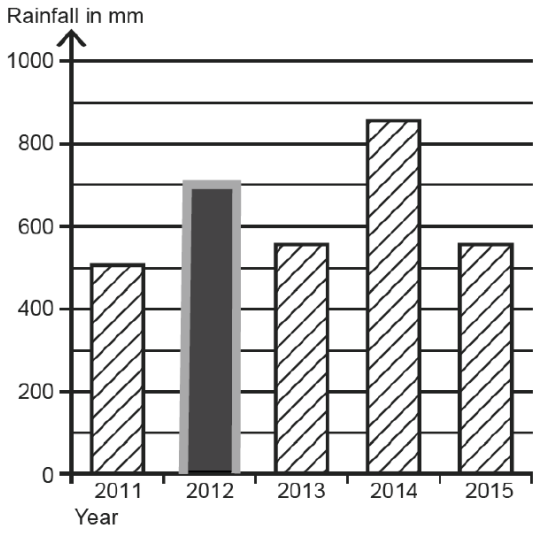
Amendments to mark schemes for Paper 2: reasoning (Braille)

Qu.	Requirement	Mark	Additional guidance
1	Q **OR** Award **ONE** mark for the correct time written: 11:05	**1m**	
9	Award **ONE** mark for three names matched correctly, as shown: Circumference = R, Diameter = P, Radius = Q **OR** Circumference is the name of the dashed line in circle R Diameter is the name of the dashed line in circle P Radius is the name of the dashed line in circle Q **OR** R P Q	**1m**	**Do not** accept a circle matched to more than one name.
14	Award **ONE** mark for an answer in the range of 125° to 135° inclusive.	**1m**	

Qu.	Requirement	Mark	Additional guidance
15	All four fractions correctly written as follows: $\frac{1}{3}$ is S $\frac{1}{6}$ is R $\frac{1}{4}$ is P $\frac{1}{2}$ is Q **OR** S R P Q	**1m**	All four fractions must be correct for the award of the mark. Misreads are not allowed. Accept equivalent fractions.
20	Award **ONE** mark for each correct answer. a) 3 b) 5	**Up to 2m**	Accept the sum rewritten with the correct missing digits.

Amendments to mark schemes for Paper 3: reasoning (Braille)

Qu.	Requirement	Mark	Additional guidance
2	R **OR** 80 306	**1m**	
3	Diagram completed, as shown:  	**1m**	Ignore any attempt to label the reflected triangle. Accept slight inaccuracies in drawing, provided the intention is clear.
7	$10\frac{1}{2}$	**1m**	Also accept equivalent decimal answers, e.g. 10.5 or 10.50.
8	Award **ONE** mark for the four shapes matched correctly, as shown: a) Q b) S c) P d) R	**1m**	**Do not** accept any shape that has been matched to more than one name.
12	Award **TWO** marks for two correctly identified nets: Q S If the answer is incorrect, award **ONE** mark for one correct answer and no incorrect answers.	**2m**	Accept alternative unambiguous positive indication of the correct answer.

Qu.	Requirement	Mark	Additional guidance
18a	Award **ONE** mark for drawing the bar in the range of 650 mm to 750 mm, e.g.  	**1m**	Ignore the width of the bar.
20	Award **TWO** marks for the three correct letters given as shown, as shown: Q R S	**Up to 2m**	The correct letters can be given in any order for the award of the mark.
22	Number machine boxes completed correctly as shown: P 8 Q ×5 R ÷2 S 20	**1m**	
23	Award **TWO** marks for two correct answers, as shown: (a) 0.15 (b) 0.625 Award **ONE** mark for one correct answer.	**Up to 2m**	

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