2023 KS1 AND KS2 STATUTORY ASSESSMENT







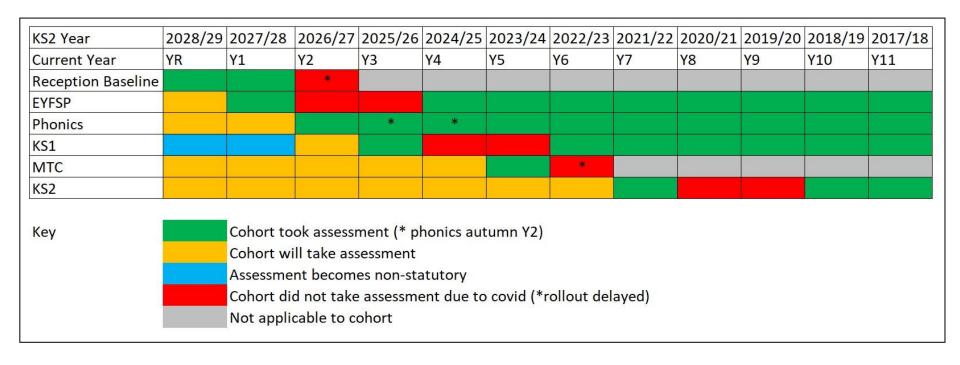








STATUTORY ASSESSMENT OVERVIEW



Source: @jpembroke















2023 Statutory Assessments

Collection

National curriculum assessments: key stage 2 tests

Use this information to:

- check important dates for the key stage 2 test cycle
- understand your statutory requirements for the key stage 2 tests
- use appropriate access arrangements
- administer the tests
- keep test materials secure
- access your school's test results

Your school will also receive printed copies of the test administration instructions with the test materials. These are not available on GOV.UK as they contain live test material. Details on the format, equipment and assistance that must be used for each test is available in the test administration guidance.

You will also receive the 'Attendance register and test script dispatch

instructions' with your stationery pack.

Contents

- Key stage 2 assessment and reporting arrangements
- Keeping materials secure
- Access arrangements
- Test administration
- Maladministration
- Planning
- Monitoring visits
- Results

'Guidance for HTs, teachers and test administrators involved in administering KS1/KS2 national curriculum tests.' [October 2022]

Collection

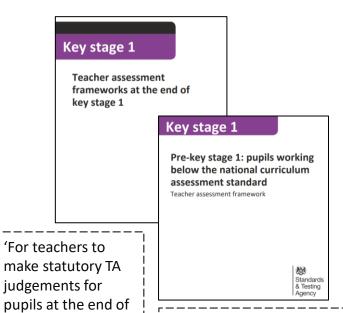
National curriculum assessments: key stage 1 tests

Guidance for headteachers, teachers and test administrators involved in administering the national curriculum tests for key stage 1.

Contents

- Key stage 1 assessment and reporting arrangements
- Keeping materials secure
- Access arrangements
- Test administration
- Maladministration

KS1 MATHEMATICS TEACHER ASSESSMENT: KEY DOCUMENTS



'Pre-key stage standards are for pupils who are working below the overall standard of KS1 NC assessments, but who are engaged in subjectspecific study.'

The engagement model

Guidance for maintained schools, academies (including free schools) and local authorities

July 2020

'The engagement model is the assessment for pupils working below the standard of NC assessments and not engaged in subject-specific study at KS1.'

'Guidance for schools and LAs involved in the administration and moderation of statutory KS1 TA in 2023.'

KS1 Teacher assessment exemplifications

2018 national curriculum assessments

Key stage 1

Teacher assessment exemplification

Mathematics

Key stage 1 teacher assessment guidance

For schools and local authorities

October 2022

Key stage 1 assessment and reporting arrangements

'Statutory guidance for assessing and reporting the national curriculum at KS1 in the 2022/23 academic year.' Key stage 1 access arrangements guidance

'Guidance for schools about access arrangements available for pupils participating in 2023 KS1 national curriculum tests.'

October 2022

The frameworks are

designed for pupils

who are working at the standard of

national curriculum

(NC) assessments.

KS1.'

KS2 MATHEMATICS TEACHER ASSESSMENT: KEY DOCUMENTS

Key stage 2

Teacher assessment frameworks at the end of key stage 2

'For teachers to make statutory TA judgements for pupils at the end of KS2.'

The frameworks are designed for pupils who are working at the standard of national curriculum (NC) assessments.

Key stage 2

Pre-key stage 2: pupils working below the national curriculum assessment standard

Teacher assessment framework

Standards

'Pre-key stage standards are for pupils who are working below the overall standard of KS2 NC assessments, but who are engaged in subject-specific study.'

The engagement model

Guidance for maintained schools, academies (including free schools) and local authorities

July 2020

'The engagement model is the assessment for pupils working below the standard of NC assessments and not engaged in subject-specific study at KS2.'

KS1 Teacher assessment exemplifications

2018 national curriculum assessments

Key stage 1

Teacher assessment exemplification

Mathematics

Key stage 2 teacher assessment quidance

For schools and local authorities

and LAs involved in the administration and moderation of statutory KS2 TA in 2023.'

'Guidance for schools

October 2022

Key stage 2 assessment and reporting arrangements

assessing and reporting the national curriculum at KS2 in the 2022/23 academic year.' October 2022

'Statutory guidance for

Key stage 2 access arrangements guidance

October 2022

'Guidance for schools about access arrangements available for pupils participating in 2023 KS2 national curriculum tests.'

'Information about how HTs, or someone with delegated authority, can re-schedule the KS2 tests.'

Key stage 2 tests: varying the test timetable

NATIONAL CURRICULUM: MATHEMATICS

Aims

'The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately;
- reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language; and
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.' [p3]

As a result, provision (over time) that meets expectations of the national curriculum will:

- promote <u>procedural fluency</u>;
- probe <u>conceptual understanding</u>; and
- challenge pupils to apply their mathematical thinking.

In a class, 18 of the children are girls.

A quarter of the children in the class are boys.

2012 KS2 Paper B Q24

Ben thinks of a number.

He adds half of the number to a quarter of the number.

The result is 60.

Mathematics

Using the mathematics pre-key stage standards

The six standards in this framework contain a number of 'pupil can' statements. To judge
that a pupil is working at a standard in mathematics, teachers need to have evidence which
demonstrates that the pupil meets all of the statements within that standard.

 As stated on page 3, teachers should assess each individual pupil based on the method of communication, and disregard statements which a pupil is physically access.

Standard 1

The pupil can:

- demonstrate an understanding of the concept of transaction (e.g. by exchange a coin for an item, or one item for another, during a role-play activity)
- distinguish between 'one' and 'lots', when shown an example of a single and a group of objects
- demonstrate an understanding of the concept of 1:1 correspondence (e.go one cup to each pupil).

Standard 2

The pupil can:

- · identify the big or small object from a selection of two
- sort objects according to a stated characteristic (e.g. group all the small together, sort the shapes into triangles and circles)
- say the number names to 5 in the correct order (e.g. in a song or by joini the teacher)
- demonstrate an understanding of the concept of numbers up to 5 by putt together the right number of objects when asked
- copy and continue simple patterns using real-life materials (e.g. apple, or apple, orange, etc.).

Key stage 1

Pre-key stage 1: pupils working below the national curriculum assessment standard

Teacher assessment framework

National curriculum assessments Key stage 2

Pre-key stage 2: pupils working below the national curriculum assessment standard

Teacher assessment framework

Standard 3

The pupil can:

- identify how many objects there are in a group of up to 10 objects, recognising smaller groups on sight and counting the objects in larger groups up to 10.
- demonstrate an understanding that the last number counted represents the total number of the count
- use real-life materials (e.g. apples or crayons) to add and subtract 1 from a group
 of objects and indicate how many are now present
- copy and continue more advanced patterns using real-life materials (e.g. apple, apple, orange, apple, apple, orange, etc.).

Standard 4

The pupil can:

- read and write numbers in numerals from 0 to 9
- demonstrate an understanding of the mathematical symbols of add, subtract and equal to
- solve number problems involving the addition and subtraction of single-digit numbers up to 10
- demonstrate an understanding of the composition of numbers to 5 and a developing ability to recall number bonds to and within 5 (e.g. 2 + 2 = 4 and 3 + 1 = 4)
- demonstrate an understanding of the commutative law (e.g. 3 + 2 = 5, therefore 2 + 3 = 5)
- demonstrate an understanding of inverse relationships involving addition and subtraction (e.g. if 3 + 2 = 5, then 5 - 2 = 3)
- demonstrate an understanding that the total number of objects changes when objects are added or taken away
- demonstrate an understanding that the number of objects remains the same when they are rearranged, providing nothing has been added or taken away
- count to 20, demonstrating that the next number in the count is one more and the previous number is one less
- · recognise some common 2-D shapes.

Standard 5 (working towards the KS1 expected standard)

The pupil can:

- read and write numbers in numerals up to 100
- partition a two-digit number into tens and ones to demonstrate an understanding of place value, though they may use structured resources¹ to support them
- add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required, explaining their method verbally, in pictures or using apparatus (e.g. 23 + 5; 46 + 20; 16 - 5; 88 - 30)
- recall at least four of the six² number bonds for 10 and reason about associated facts (e.g. 6 + 4 = 10, therefore 4 + 6 = 10 and 10 - 6 = 4)
- · count in twos, fives and tens from 0 and use this to solve problems
- · know the value of different coins
- name some common 2-D and 3-D shapes from a group of shapes or from pictures
 of the shapes and describe some of their properties (e.g. triangles, rectangles,
 squares, circles, cuboids, cubes, pyramids and spheres).

Standard 6 (working at the KS1 expected standard)

The pupil can:

- · read scales3 in divisions of ones, twos, fives and tens
- partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus
- add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. 48 + 35; 72 – 17)
- recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships
 (e.g. If 7 + 3 = 10, then 17 + 3 = 20; if 7 3 = 4, then 17 3 = 14; leading to if 14 + 3 = 17, then 3 + 14 = 17, 17 14 = 3 and 17 3 = 14)
- recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary
- identify ¹/₄, ¹/₃, ¹/₂, ²/₄, ³/₄ of a number or shape, and know that all parts must be equal parts of the whole
- use different coins to make the same amount
- read the time on a clock to the nearest 15 minutes
- name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry.

National curriculum assessments

Key stage 2

Pre-key stage 2: pupils working below the national curriculum assessment standard

Teacher assessment framework

For use from the 2020/21 academic year onwards



academic year onwards

Standards & Testing Agency

Working towards the expected standard

The pupil can:

- read and write numbers in numerals up to 100
- partition a two-digit number into tens and ones to demonstrate an understanding of place value, though they may use structured resources¹ to support them
- add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required, explaining their method verbally, in pictures or using apparatus (e.g. 23 + 5; 46 + 20; 16 – 5; 88 – 30)
- recall at least four of the six² number bonds for 10 and reason about associated facts (e.g. 6 + 4 = 10, therefore 4 + 6 = 10 and 10 - 6 = 4)
- . count in twos, fives and tens from 0 and use this to solve problems
- · know the value of different coins
- name some common 2-D and 3-D shapes from a group of shapes or from pictures of the shapes and describe some of their properties (e.g. triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres).

Working at the expected standard

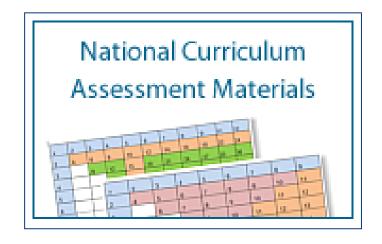
The pupil can:

- read scales* in divisions of ones, twos, fives and tens
- partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus
- add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. 48 + 35; 72 – 17)
- recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (e.g. If 7 + 3 = 10, then 17 + 3 = 20; if 7 3 = 4, then 17 3 = 14; leading to if 14 + 3 = 17, then 3 + 14 = 17, 17 14 = 3 and 17 3 = 14)
- recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary
- identify \(\frac{1}{4}\), \(\frac{1}{2}\), \(\frac{2}{2}\), \(\frac{2}{4}\), of a number or shape, and know that all parts must be equal parts of the whole
- use different coins to make the same amount
- · read the time on a clock to the nearest 15 minutes
- name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry.

NCETM: National Curriculum Assessment Materials (March 2015)









'To help teachers make judgements on the degree to which pupils have acquired mastery of the mathematics curriculum, the NCETM has produced a series of questions, tasks and activities, mapped against key topics of the national curriculum.'















KS1 MATHEMATICS: TEACHER ASSESSMENT FRAMEWORK: EXS

TA standard: 'The pupil can'	National Curriculum PoS	National Exemplifications	NCETM Assessment Materials	NCETM Curriculum Prioritisation (DfE non- statutory guidance)	Kangaroo Maths		
					Mastery Indicator	BAM	Got It?
read scales in divisions of ones, twos, fives and tens.'	Y2 Measurement (a/b) Y2 Number PV (c)	KS1 EXS: p17	Y2 p25	2NPV-2: Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.			
partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus.'	Y2 Number PV (b/c)	KS1 EXS: p18; p19	Y2 p10; p11	2NPV-1: Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and nonstandard partitioning.			
add and subtract any two TU numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (eg 48 + 35; 72 – 17).'	Y2 Number +/- (b/c/e)	KS1 EXS: pp20-24	Y2 p13	2AS-3: Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a TU number. 2AS-4: Add/subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 TU numbers.			
recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (eg If $7+3=10$, then $17+3=20$; if $7-3=4$, then $17-3=14$; leading to if $14+3=17$, then $3+14=17$, $17-14=3$ and $17-3=14$).'	Y2 Number +/- (a/e)	KS1 EXS: p20; pp25-27	Y2 p14	2NF-1: Secure fluency in addition and subtraction facts within 10, through continued practice.			
recall multiplication/division facts for 2/5/10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary.'	Y2 Number x/÷ (a/b/c/d)	KS1 EXS: p28	Y2 p17; p18	2MD-1: Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2/5/10 tables.			
identify ¼, ½, ½, ½, ¾ of a number/shape and know that all parts must be equal parts of the whole.'	Y2 Fractions (a/b)	KS1 EXS: p29; p30	Y2 pp19-21				
use different coins to make the same amount.'	Y2 Measurement (c/d)	KS1 EXS: p31; p32	Y2 p23; p24				
read the time on a clock to the nearest 15 mins.'	Y2 Measurement (g)	KS1 EXS: p33	Y2 p26				
name and describe properties of 2D and 3D shapes, including number of sides, vertices, edges, faces and lines of symmetry.'	Y2 Geometry Properties (a/b/c)	KS1 EXS: p34	Y2 p28	2G-1: Use precise language to describe the properties of 2D/3D shapes, and compare shapes by reasoning about similarities and differences in properties.			















MATHEMATICS: TA Exemplifications

2018 national curriculum assessments

Key stage 1

Teacher assessment exemplification

Mathematics



Evidence of pupils' learning may ...

- ... be planned;
- ... have the element of surprise;
- ... occur in a context outside the mathematics lesson;
- ... be observed;
- ... arise from discussion;
- ... occur in a written outcome ; or
- ... not be recorded, but understood and remembered.







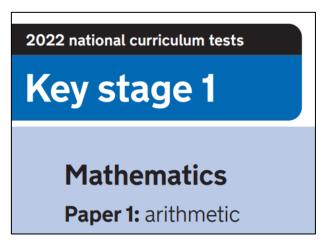


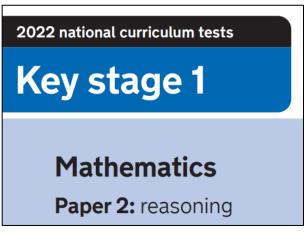






KS1 National Curriculum Tests (2018, 2019, 2022)





2022 national curriculum tests

Key stage 1

Mathematics test mark schemes

Paper 1: arithmetic
Paper 2: reasoning

https://www.gov.uk/government/collections/national-curriculum-assessments-practice-materials















Key stage 1

Mathematics test framework

National curriculum tests from 2016

6.3 Format of questions and responses

6.3.1 Paper 1

Paper 1 (arithmetic) will be comprised of constructed response questions, presented as context-free calculations. The arithmetic questions will each be worth one mark.

6.3.2 Paper 2

For Paper 2, mathematical reasoning problems are presented in a wide range of formats to ensure pupils can fully demonstrate mathematical fluency, mathematical problem solving and mathematical reasoning. There will be six aural questions at the start: one practice question and five test questions. These questions will help the pupils settle into the test; they will be placed in approximate order of difficulty. All questions may be read aloud, so that reading ability does not impair a pupil's ability to demonstrate his or her mathematical attainment.

Paper 2 will include both selected response and constructed response questions.

Selected response questions, where pupils are required to select which option satisfies the constraint given in the question, will include question types such as:

- multiple choice, where pupils are required to select their response from the options given
- matching, where pupils are expected to indicate which options match correctly
- true / false or yes / no questions, where pupils are expected to choose one response for each statement

https://www.gov.uk/government/collections/national-curriculum-assessments-test-frameworks















Key stage 1

Mathematics test framework

National curriculum tests from 2016

Table 10: Profile of content domain

Content area	Number of marks	Percentage of marks
Number Number and place value (N) Addition, subtraction, multiplication, division (calculations) (C) Fractions (F)	48–54	80–90%
Measurement, geometry and statistics Measurement (M) Geometry – properties of shapes (G) Geometry – position and direction (P) Statistics (S)	6–12	10–20%

Table 11: Profile of marks by paper and curriculum element

Component	Number	Measurement, geometry and statistics	Total marks
Paper 1: arithmetic	25	0	25
Paper 2: mathematical reasoning	23-29	6-12	35
			60

KS2 National Curriculum Tests (2018, 2019, 2022)

2022 national curriculum tests

Key stage 2

Mathematics test mark schemes

Paper 1: arithmetic Paper 2: reasoning

Paper 3: reasoning

2022 national curriculum tests

Key stage 2

Mathematics

Paper 1: arithmetic



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Tools for Maths Teachers

2022 national curriculum tests

Key stage 2

Mathematics

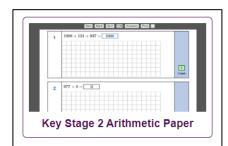
Paper 2: reasoning

2022 national curriculum tests

Key stage 2

Mathematics

Paper 3: reasoning



Key stage 2

Mathematics test framework

National curriculum tests from 2016

Table 10: Profile of content domain

Content area Strand	Number of marks	Percentage of marks
Number, ratio and algebra	83-93	75-85%
Number, place value (N)		
Addition, subtraction, multiplication, division, calculations (C)		
Fractions, decimals and percentages (F)		
Ratio and proportion (R)		
Algebra (A)		
Measurement, geometry and statistics	17-27	15-25%
Measurement (M)		
Geometry – properties of shapes (G)		
Geometry – position and direction (P)		
Statistics (S)		

Table 11: Profile of marks by paper and national curriculum element

Paper	Number, ratio and algebra	Measurement, geometry and statistics	Total marks	
Paper 1 (arithmetic)	40	0	40	
Papers 2 and 3 (fluency, mathematical problem solving and mathematical reasoning)	22-26	9–13	70 (35 each paper)	

Key stage 2

Mathematics test framework

National curriculum tests from 2016

6.3 Format of questions and responses

6.3.1 Paper 1

Paper 1 (arithmetic) will comprise constructed response questions, presented as contextfree calculations. The majority of the arithmetic calculations will be worth one mark. However, two marks will be available for long multiplication and long division.

6.3.2 Papers 2 and 3

In Papers 2 and 3, mathematical problems are presented in a wide range of formats to ensure pupils can fully demonstrate mathematical fluency, mathematical problem solving and mathematical reasoning.

Papers 2 and 3 will include both selected response and constructed response questions.

Selected response questions, where pupils are required to select which option satisfies the constraint given in the question, will include question types such as:

- multiple choice, where pupils are required to select their response from the options given
- matching, where pupils are expected to indicate which options match correctly
- true / false or yes / no questions, where pupils are expected to choose one response for each statement or problem

https://www.gov.uk/government/collections/nationalcurriculum-assessments-test-frameworks















Reasoning Prompts

Change the values to balance the number sentence.

Give me an example of ... (and another ... and another).

Which one is the odd one out? Explain your reasoning

Use ... to solve/calculate ...

Spot, and correct, the mistake.

What do you notice?

Always, sometimes or never true ... and explain.

True or false ... and explain.

Convince me that ...

If you know ..., what else do you know?

2022 KS1 ARITHMETIC

Q24
$$-50 = 50$$

Q12
$$\frac{1}{2}$$
 of 80 =

Q18
$$\frac{1}{4}$$
 of 16 =

2022 KS1 REASONING

What do you notice?

25 Sam puts **18** cards in rows.

He puts **3** cards in each row.

How many **rows** of cards are there?

8 children are eating plums.

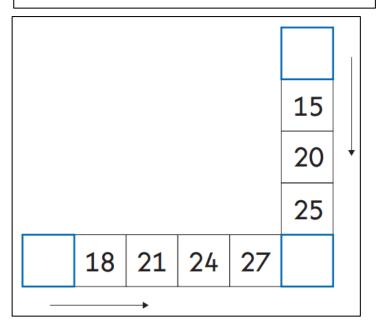
Each child eats **2** plums.

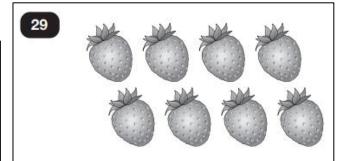
How many plums do they eat altogether?

14 Here are two number patterns.

There are **three** missing numbers.

Write them in the empty boxes.

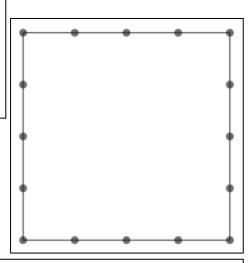




Sita has 8 strawberries.

She eats $\frac{3}{4}$ of them.

How many does she eat?



Draw **two lines** to divide the square into **quarters**.

Q1
$$6,155 + 501 + 649 =$$

Q14
$$500,000 - 5,000 =$$

Q12
$$6 \times 10 \times 11 =$$

What do you notice?

Q35
$$6 + 4 \div 2 =$$

Q18
$$\left| \frac{4}{9} + \frac{2}{3} \right| =$$

Q22
$$\frac{7}{10}$$
 of 30 = Q16 $2.12 \div 10 =$

$$Q24 \quad \frac{1}{8} \div 2 =$$

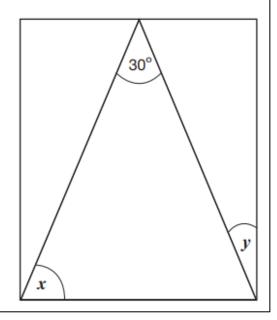
$$13.05 \times 1,000 =$$

Q31
$$\left| \frac{2}{7} - \frac{1}{9} \right| =$$

Q23
$$8 - 5.123 =$$

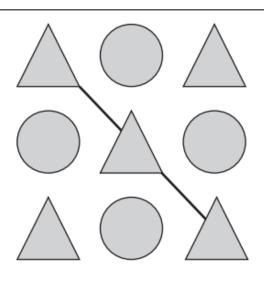
24

Here is an isosceles triangle inside a rectangle.



2022 KS2 REASONING (Paper 2) What do you notice?

21



Each shape stands for a number.

The total of the shapes on the diagonal line is 48

The total of all the shapes is 200

17

6 divides into 40 with a remainder of 4

Write one other number that divides into 40 with a remainder of 4

9

Complete the calculation.

2022 KS2 REASONING (Paper 3)

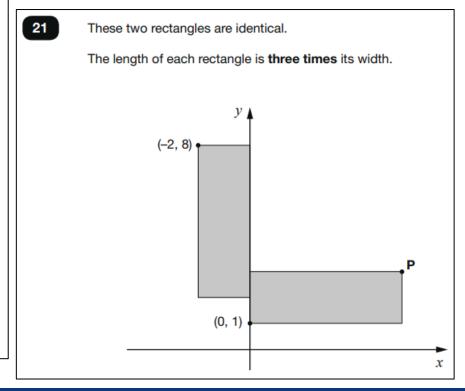
What do you notice?

Adam buys 4 pens and a ruler and pays £4.75 altogether.



Jack buys 2 pens and pays £1.98 altogether.



















In a class, 18 of the children are girls.

A quarter of the children in the class are boys.

Altogether, how many children are there in the class?

2012 KS2 Paper B Q24

Ben thinks of a number.

He adds half of the number to a quarter of the number.

The result is 60.

What was the number that Ben first thought of?

2008 KS2 Paper A Q21

Thoughts ... points for consideration

- Use previous NC tests to inform learning/teaching and to support pupils with familiarisation of the test format.
- Use 'arithmetic' paper to model efficiency ('What do you notice?') when calculating.
- Use pupils as mathematics 'ambassadors' to showcase the range of strategies/approaches that make efficient use of time ... this could extend to pupils creating their own aide memoire/memory jogger to help them prepare for the tests.
- Use 'reasoning' papers to prompt discussions on the theme of 'What do you notice?' For example, crop/snip questions to provide discussion prompts.
- Encourage pupils to generate questions that might appear in the tests. This helps them to use precise vocabulary and to think through the task (... particularly useful for multi-step problems).
- Consider opportunities for home/school learning.