NFER Classroom

maths

year 4

4

teacher guide autumn

Mark scheme for arithmetic booklet

1

PoS C *Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction*

1m

Award **1 mark** for:

➤ 406

2

PoS C *Recall multiplication and division facts for multiplication tables up to 12 × 12*

1m

Award **1 mark** for:

➤ **all ten** correct numbers circled as shown:

1	2	**3**	4	5	**6**	7	8	**9**	10
11	**12**	13	14	**15**	16	17	**18**	19	20
21	22	23	**24**	25	26	**27**	28	29	**30**

Accept:

➤ any other clear way of indicating the ten correct numbers, such as ticking or underlining

Do not accept:

➤ if additional incorrect numbers are circled

3

PoS C *Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction*

1m

Award **1 mark** for:

➤ 90

4

PoS C *Recall multiplication and division facts for multiplication tables up to 12 × 12*

1m

Award **1 mark** for:

➤ 1 × 36 = 36 **OR** 2 × 18 = 36 **OR** 3 × 12 = 36 **OR** 4 × 9 = 36 **OR** 6 × 6 = 36

Accept:

➤ factors given in either order

© NFER

5

PoS F *Compare numbers with the same number of decimal places up to two decimal places*

1m

Award **1 mark** for:

➤ **all four** numbers ordered as shown:

smallest ⟶ **largest**

2.85	**3.42**	**6.78**	**28.3**	**34.2**

Accept:

➤ any other clear way of indicating the correct order, such as writing 1st, 2nd, 3rd etc. by the numbers

➤ minor copying errors provided that the order of the numbers is correct, eg:

- 3.42 6.78 28.3 34.4

Do not accept:

➤ a response in which a decimal point is missing or which contains copying errors that give incorrectly ordered values, eg:

- 3 42 6 78 28 3 34 2
- 3.42 6.78 2.83 34.2

6

PoS N *Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)*

1m

Award **1 mark** for:

➤ 8 8 (8) 8

7

PoS N *Count in multiples of 6, 7, 9, 25 and 1000*

1m

Award **1 mark** for:

➤ **all four** boxes completed as shown:

48	**54**	60	**66**	72	**78**	**84**

8

PoS F *Add and subtract fractions with the same denominator within one whole [e.g. 5/7 + 1/7 = 6/7]*

1m

Award **1 mark** for:

➤ $\frac{7}{12}$

9

PoS C *Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate*

1m

Award **1 mark** for:

➤ 10 293

10

PoS C *Estimate and use inverse operations to check answers to a calculation*

1m

Award **1 mark** for:

➤ the correct box ticked as shown:

117 – 39	☐	39 ÷ 3	☐
117 + 39	☐	39 × 3	✓

Accept:

➤ any other clear way of indicating the correct box, such as underlining or circling

Do not accept:

➤ if additional incorrect boxes are ticked

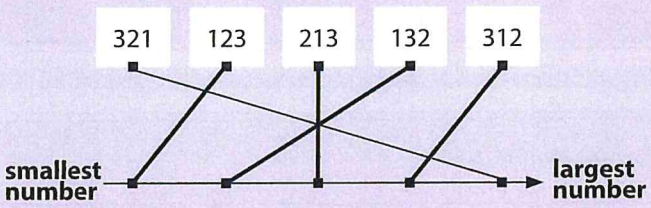
11

PoS N *Compare and order numbers up to 1000. Read and write numbers to 1000 in numerals and in words*

1m

Award **1 mark** for:

➤ **all four** numbers matched as shown:



Lines need not touch the boxes exactly, provided the intention is clear

Accept:

➤ any other clear way of indicating the correct order, such as writing the numbers on the arrow

Do not accept:

➤ two or more lines drawn from the same number

12

PoS C *Add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds*

1m

Award **1 mark** for:

➤ 164

© NFER

13

PoS N *Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value*

1m

Award **1 mark** for:

➤ the correct box ticked as shown:

LXX	☐	LVX	☐
LVV	☐	LXV	☑

Accept:

➤ any other clear way of indicating the correct box, such as underlining or circling

Do not accept:

➤ if additional incorrect boxes are ticked

14

PoS C *Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate*

1m

Award **1 mark** for:

➤ 5002

15

PoS F *Add and subtract fractions with the same denominator*

1m

Award **1 mark** for:

➤ $\frac{2}{9}$

16

PoS N *Order and compare numbers beyond 1000*

1m

Award **1 mark** for:

➤ the correct number circled as shown:

(2908) 2809 2980 2990

Accept:

➤ any other clear way of indicating the correct number, such as underlining or ticking

Do not accept:

➤ if additional incorrect numbers are circled

17

PoS N *Count in multiples of 6, 7, 9, 25 and 1000; and*
Count backwards through zero to include negative numbers

1m

Award **1 mark** for:

➤ **all three** boxes completed as shown:

–50	**–25**	0	25	50	**75**	100	**125**	150

18

PoS N *Find 1000 more or less than a given number*

1m

Award **1 mark** for:

➤ 69 707

19

PoS C *Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate*

1m

Award **1 mark** for:

➤ 2627

20

PoS C *Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers*

1m

Award **1 mark** for:

➤ **both** correct answers given as shown:

49 ÷ 1 = **49** **AND**

108 × 0 = **0**

21

PoS C *Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers ; and*
Recall multiplication and division facts for multiplication tables up to 12 × 12

1m

Award **1 mark** for:

➤ 4 × 6 × 3 = **72**

22

PoS F *Round decimals with one decimal place to the nearest whole number*

1m

Award **1 mark** for:

➤ 130

© NFER

23 PoS **C** *Multiply two-digit and three-digit numbers by a one-digit number using formal written layout*

1m

Award **1 mark** for:

➤ 756

24 PoS **N** *Find 1000 more or less than a given number*

1m

Award **1 mark** for:

➤ 10 999

25 PoS **C** *Recall multiplication and division facts for multiplication tables up to 12 × 12*

1m

Award **1 mark** for:

➤ 12

26 PoS **N** *Count backwards through zero to include negative numbers*

1m

Award **1 mark** for:

➤ –5

27 PoS **C** *Recognise and use factor pairs and commutativity in mental calculations*

1m

Award **1 mark** for:

➤ **both** statements ticked as shown:

12 × 6 = 6 × 12	✓	12 – 6 = 6 – 12	☐
12 + 6 = 6 + 12	✓	12 ÷ 6 = 6 ÷ 12	☐

Accept:

➤ any other clear way of indicating the two correct statements, such as underlining or circling

Do not accept:

➤ if additional incorrect statements are ticked

28 | PoS **F** | *Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths*

1m

Award **1 mark** for:

- 2.7 (0)

29 | PoS **N** | *Round any number to the nearest 10, 100 or 1000*

1m

Award **1 mark** for:

- 29 000

30 | PoS **F** | *Recognise and write decimal equivalents of any number of tenths or hundredths*

1m

Award **1 mark** for:

- 0.6

31 | PoS **C** | *Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate; and*
Round any number to the nearest 10, 100 or 1000

2m

Award **2 marks** for:

- 9400

1m

Award **1 mark** for:

- evidence of appropriate working involving a complete and correct formal method which contains no more than one arithmetical error, eg:
  - 1350
    +8071
    9321 → 9300
- a correct addition without rounding, eg:
  - 1350
    +8071
    9421
- a correct addition using numbers rounded to 100, eg:
  - 1400
    +8100
    9500
- a correct addition which is incorrectly rounded, eg:
  - 1350
    +8071
    9421 → 9300 **OR**
    400

© NFER

32

PoS F *Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten*

1m

Award **1 mark** for:

➤ **both** divisions circled as shown:

(1 ÷ 100) 0.1 ÷ 100

1 ÷ 10 (0.1 ÷ 10)

Accept:

➤ any other clear way of indicating the two correct divisions, such as ticking or underlining

Do not accept:

➤ if additional incorrect divisions are circled

33

PoS C *Multiply two-digit and three-digit numbers by a one-digit number using formal written layout*

1m

Award **1 mark** for:

➤ 4338

34

PoS F *Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten*

1m

Award **1 mark** for:

➤ $\frac{57}{100}$

Answers to the practice questions

Reasoning Test 1

Practice Questions

a Write the missing numbers in the boxes.

247 + 100 = 347

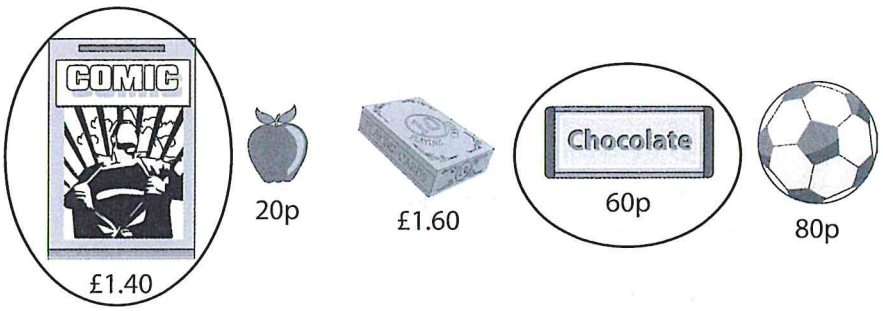
5990 + 100 = 6090

1 mark

b Lola spends a total of £2 at the shop.

Circle the **two** items that Lola buys.

Circle them.



1 mark

STOP **Please wait until you are told to start work on page 4.**

You should work through the booklet until you are asked to stop. Answer as many questions as you can. If you find a question is too difficult, go on to the next one and come back to it later if you have time.

3

© NFER

Mark scheme for reasoning Test 1

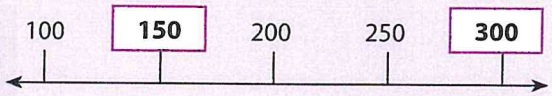
1

PoS N *Count from 0 in multiples of 4, 8, 50 and 100*

1m

Award **1 mark** for:

➤ **both** boxes completed as shown:



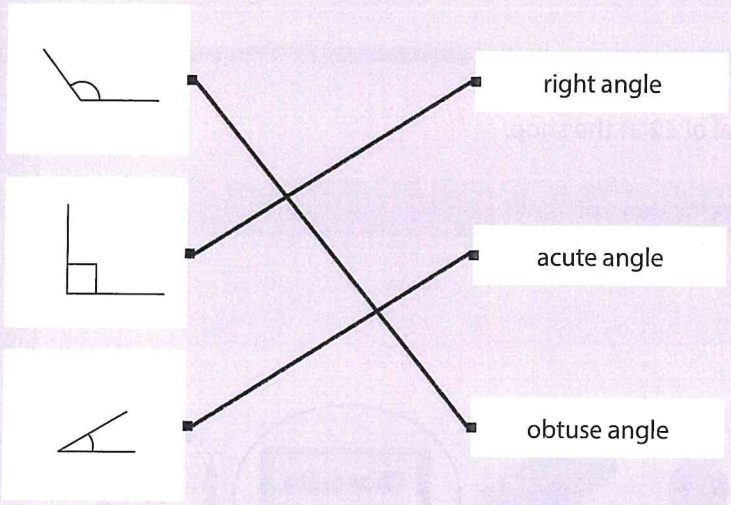
2

PoS G *Identify acute and obtuse angles and compare and order angles up to two right angles by size*

1m

Award **1 mark** for:

➤ **all three** angles matched as shown:



Lines need not touch the boxes exactly, provided the intention is clear

Do not accept:

➤ two or more lines drawn from the same angle or name

3

PoS C *Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects*

1m

Award **1 mark** for:

➤ 252 ÷ 18 = 14

4

PoS N *Compare and order numbers up to 1000. Read and write numbers to 1000 in numerals and in words*

1m

Award **1 mark** for:

➤ **all three** correct numbers circled as shown:

98	(927)	385
(579)	573	(620)

Accept:

➤ any other clear way of indicating the three correct numbers, such as underlining or ticking

Do not accept:

➤ if additional incorrect numbers are circled

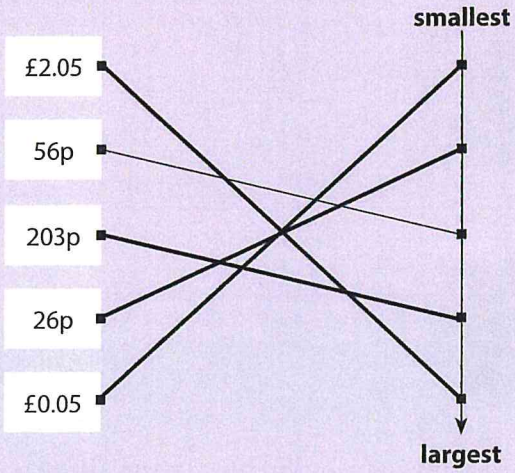
5

PoS M *Compare different measures, including money in pounds and pence; and*
Solve simple measure and money problems involving fractions and decimals to two decimal places

1m

Award **1 mark** for:

➤ **all four** numbers ordered as shown:



Lines need not touch the boxes exactly, provided the intention is clear

Accept:

➤ any other clear way of indicating the correct order, such as writing the numbers in order along the arrow

Do not accept:

➤ two or more lines drawn from the same box

© NFER

6

PoS C *Solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects*

1m

Award **1 mark** for:

➤ **all three** boxes completed as shown:

5	doubled →	10	doubled →	**20**
2	doubled →	4	doubled →	8
20	doubled →	**40**	doubled →	80

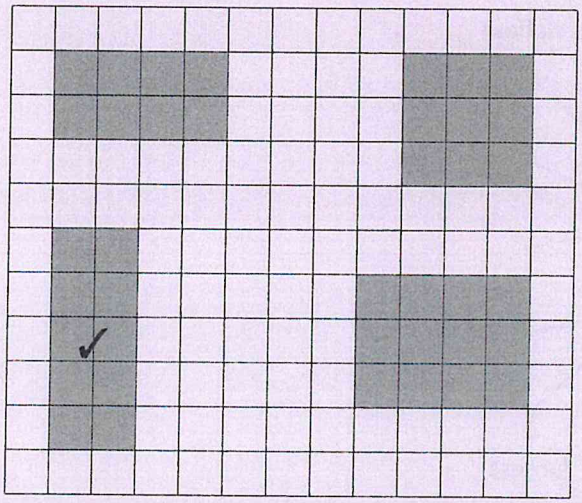
7

PoS M *Find the area of rectilinear shapes by counting squares*

1m

Award **1 mark** for:

➤ the correct shape ticked as shown:



Accept:

➤ any other clear way of indicating the correct shape, such as underlining or circling

Do not accept:

➤ if additional incorrect shapes are circled

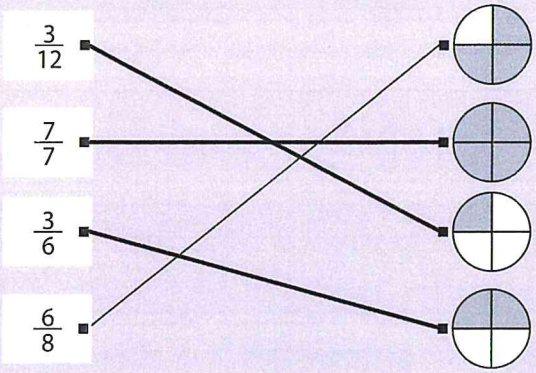
8

PoS F *Recognise and show, using diagrams, families of common equivalent fractions*

1m

Award **1 mark** for:

➤ **all three** fractions matched as shown:



Lines need not touch the pictures exactly, provided the intention is clear

Do not accept:

➤ two or more lines drawn from the same fraction or picture

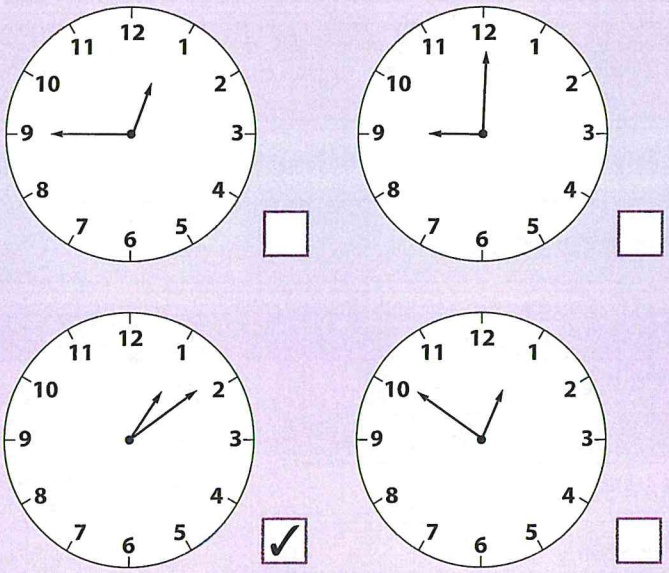
9

PoS M *Tell and write the time from an analogue clock; 12-hour clocks*

1m

Award **1 mark** for:

➤ the correct clock ticked as shown:



Accept:

➤ any other clear way of indicating the correct clock, such as underlining or circling

Do not accept:

➤ if additional incorrect clocks are ticked

© NFER

10

PoS F *Solve simple measure and money problems involving fractions and decimals to two decimal places*

1m

Award **1 mark** for:

➤ 3.1

11

PoS F *Add and subtract fractions with the same denominator*

1m

Award **1 mark** for:

➤ $\frac{5}{8}$

12

PoS N *Count backwards through zero to include negative numbers; and*

Use place value and number facts to solve number and practical problems with increasingly large positive numbers

1m

Award **1 mark** for:

➤ -3

13

PoS C *Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects*

1m

Award **1 mark** for:

➤ 3

14

PoS N *Round any number to the nearest 10, 100 or 1000*

1m

Award **1 mark** for:

➤ **all three** statements classified as shown:

	True	False
4973 rounded to the nearest 1000 is 5000	✓	
4973 rounded to the nearest 100 is 5000	✓	
4973 rounded to the nearest 10 is 4980		✓

Accept:

➤ any other clear way of indicating the correct response, such as writing 'T' or 'F' in the appropriate boxes

15

PoS S

Solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts, pictograms and tables; and

Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

2m Award **2 marks** for **all three** answers correct as shown.
1m Award **1 mark** for **any two** answers correct:

➤ 16 **AND**

8 **AND**

40 [in that order]

16

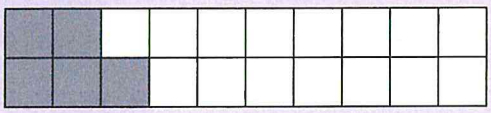
PoS F

Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators; and

Recognise , find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominaters

1m Award **1 mark** for:

➤ **any five** squares shaded, eg:

- 

17

PoS C

Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why; and

Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate

2m Award **2 marks** for:

➤ 2924

1m Award **1 mark** for:

➤ evidence of appropriate working involving a complete and correct method which contains no more than one arithmetical error, eg:

- 3276 – 915 = [incorrect answer]
  [incorrect answer] + 563 = answer in the box
- 915 – 563 = 352
  3276 – 352 = answer in the box

18

PoS M

Read, write and convert time between analogue and digital 24-hour clocks

2m Award **2 marks** for:

➤ 20:10

1m Award **1 mark** for:

➤ 8:10 [correct time in 12 hour clock]

© NFER

19

PoS F	*Solve simple measure and money problems involving fractions and decimals to two decimal places*

1m

Award **1 mark** for:

➤ 1.10

20

PoS N	*Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value*

1m

Award **1 mark** for:

➤ the correct statement circled as shown:

XXIV = 24	XL = 40
(LIX = 61)	LXVIII = 68

Accept:

➤ any other clear way of indicating the correct statement, such as underlining or ticking

Do not accept:

➤ if additional incorrect statements are circled

21

PoS S	*Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs*

1m

Award **1 mark** for:

➤ 6

22

PoS M *Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days*

1m

Award **1 mark** for:

➤ 3

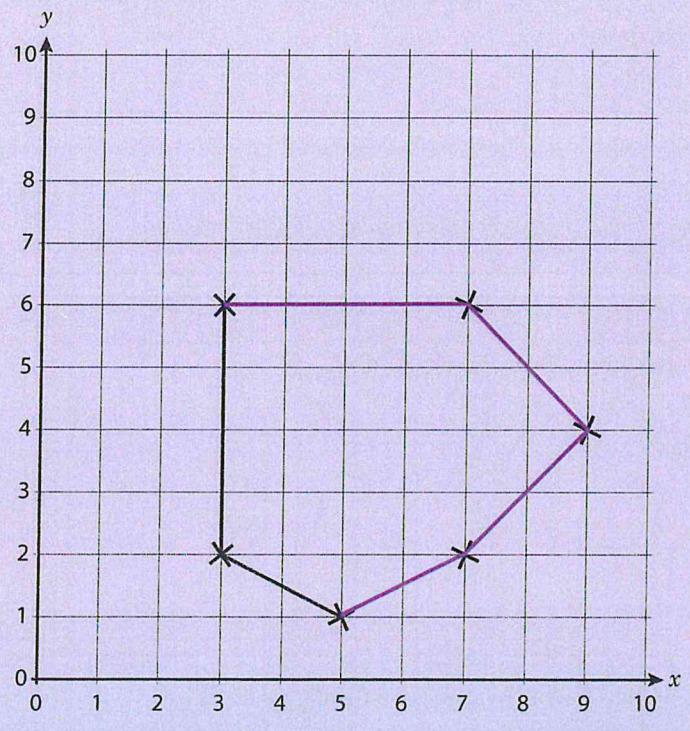
23

PoS P *Plot specified points and draw sides to complete a given polygon*

1m

Award **1 mark** for:

➤ correctly plotted points and the shape completed as shown:



Accept:

➤ correctly plotted points which have not been joined

24

PoS F *Recognise and write decimal equivalents of any number of tenths or hundredths*

1m

Award **1 mark** for:

➤ 46.25

Accept:

➤ alternative numbers with four tens, six ones, two tenths and five hundredths, eg:

- 146.25

25

PoS C

Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects; and

Recall multiplication and division facts for multiplication tables up to 12 × 12

a. 1m

Award **1 mark** for:

➤ **both** missing numbers completed as shown:

50 × 7 = 350

9 × **7** = 63

b. 1m

Award **1 mark** for:

➤ an indication that 350 and 63 must be added together **AND** the correct answer given, eg:

- Fred must add 63 to 350 to get 413
- 350 + 63 = 413

26

PoS F

Recognise and show, using diagrams, families of common equivalent fractions

1m

Award **1 mark** for:

➤ **two** correct statements using fractions from the diagram, eg:

- $\frac{1}{2} = \frac{\mathbf{4}}{\mathbf{8}}$ **OR** $\frac{\mathbf{2}}{\mathbf{4}}$ **AND**

  $\frac{3}{4} = \frac{\mathbf{1}}{\mathbf{2}} + \frac{\mathbf{1}}{\mathbf{4}}$

Accept:

➤ any correct statement for $\frac{3}{4}$ using fractions taken from the diagram, eg:

- $\frac{3}{4} = \frac{\mathbf{1}}{\mathbf{4}} + \frac{\mathbf{4}}{\mathbf{8}}$
- $\frac{3}{4} = \frac{\mathbf{2}}{\mathbf{4}} + \frac{\mathbf{2}}{\mathbf{8}}$
- $\frac{3}{4} = \frac{\mathbf{3}}{\mathbf{8}} + \frac{\mathbf{3}}{\mathbf{8}}$

Do not accept:

➤ fractions that are not included in the diagram, eg:

- $\frac{1}{2} = \frac{3}{6}$

Mark scheme for reasoning Test 2

1

PoS F *Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10*

1m

Award **1 mark** for:

➤ **both** cells of the table completed as shown:

	Value
A	0.6
B	**2.3**
C	**3.8**

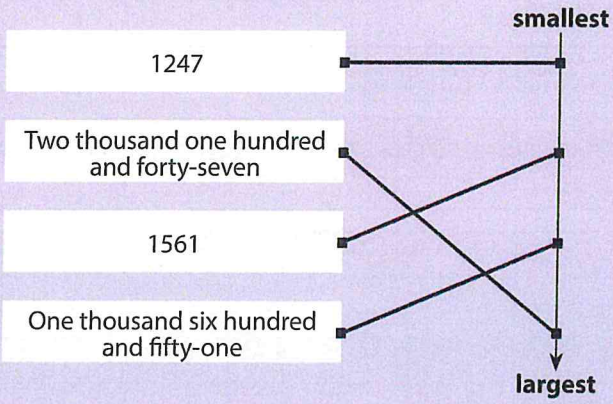
2

PoS N *Order and compare numbers beyond 1000; and*
Identify, represent and estimate numbers using different representations

1m

Award **1 mark** for:

➤ **all four** numbers ordered as shown:



Lines need not touch the boxes exactly, provided the intention is clear

Accept:

➤ any other clear way of indicating the correct order, such as writing the numbers in order along the arrow

Do not accept:

➤ two or more lines drawn from the same number or to the same point on the arrow

3

PoS S *Interpret and present data using bar charts, pictograms and tables*

1m

Award **1 mark** for:

➤ **all three** numbers placed in the diagram as shown:

	Numbers less than 10	Numbers greater than 10
Even numbers		**24**
Odd numbers	**7**	**19**

Accept:

➤ answers which offer additional numbers (other than 7, 19 and 24) on the diagram, if correctly placed

➤ any other clear way of indicating the correct answer, such as drawing lines from the numbers to the correct areas on the diagram

Do not accept:

➤ a correct response with additional numbers on the diagram if incorrectly placed

➤ if any of the given numbers are written in more than one cell

➤ only one or two numbers correctly placed

4

PoS S *Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs*

1m

Award **1 mark** for:

➤ Alex

Accept:

➤ any reasonable spelling provided the intention is clear

5

PoS F *Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10; and*

Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators

1m

Award **1 mark** for:

➤ $\frac{3}{10}$

6

PoS G *Identify acute and obtuse angles and compare and order angles up to two right angles by size*

1m

Award **1 mark** for:

➤ **all five** letters ordered as shown:

smallest → **largest**

D	A	E	C	B

Accept:

➤ any other clear way of indicating the correct order, such as writing 1st, 2nd, 3rd, 4th and 5th by the angles

7

PoS N *Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)*

1m

Award **1 mark** for:

➤ 6052

Accept:

➤ any four digit number greater than 6052 which contains the required digits in the correct places, eg:

- 6352

8

PoS M *Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres*

1m

Award **1 mark** for:

➤ 52

9

PoS S *Solve one-step and two-step questions [e.g. 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts, pictograms and tables*

1m

Award **1 mark** for:

➤ **both** answers correct as shown:

3 **AND**

100 [in that order]

Accept:

➤ any other clear way of indicating that three symbols are required in part 'a', such as drawings on the appropriate place on the pictogram of similar size and shape to the given symbol

10

PoS N

Use place value and number facts to solve number problems and practical problems with numbers up to 1000; and

Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

1m

Award **1 mark** for:

➤ 273

11

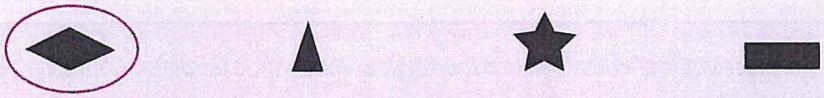
PoS P

Describe positions on a 2-D grid as coordinates in the first quadrant

a. 1m

Award **1 mark** for:

➤ the correct shape circled as shown:



Accept:

➤ any other clear way of indicating the correct shape, such as underlining or ticking the diamond on the grid

Do not accept:

➤ if additional incorrect shapes are circled

b. 1m

Award **1 mark** for:

➤ (1, 4)

Accept:

➤ a correct answer written on the diagram with or without brackets

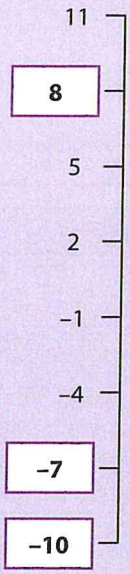
Do not accept:

➤ (4, 1)

12 PoS **N** *Count backwards through zero to include negative numbers*

1m Award **1 mark** for:

➤ **all three** boxes completed as shown:



13 PoS **G** *Identify lines of symmetry in 2-D shapes presented in different orientations*

1m Award **1 mark** for:

➤ B **AND** D [in either order]

Accept:

➤ any other clear way of indicating the correct shapes, such as underlining or circling the correct letters

14 PoS **C** *Write and calculate mathematical statements for multiplication and division using the multiplication tables that pupils know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods*

1m Award **1 mark** for:

➤ 56 ÷ 8 = 7

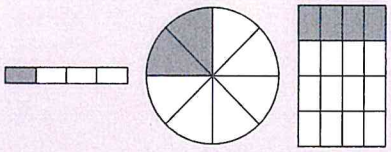
15

PoS F *Recognise and show, using diagrams, families of common equivalent fractions*

a. 1m

Award **1 mark** for:

➤ $\frac{1}{4}$ of each shape shaded, eg:

- 

b. 1m

Award **1 mark** for:

➤ any fraction equivalent to $\frac{1}{4}$, eg:

- $\frac{2}{8}$
- $\frac{4}{16}$

16

PoS C *Recognise and use factor pairs and commutativity in mental calculations; and Recall multiplication and division facts for multiplication tables up to 12 × 12*

1m

Award **1 mark** for:

➤ **all four** boxes completed as shown:

2 and | 12 | | **3** | and 8

1 and | **24** | | **4** | and | **6** | [in either order]

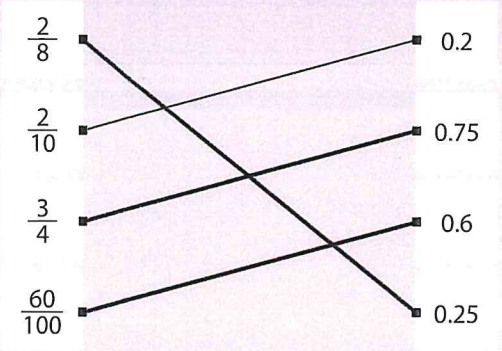
17

PoS F *Recognise and write decimal equivalents of any number of tenths or hundredths; and Recognise and write decimal equivalents to 1/4, 1/2, 3/4*

1m

Award **1 mark** for:

➤ **all three** fractions matched as shown:



Lines need not touch the boxes exactly, provided the intention is clear

Do not accept:

➤ two or more lines drawn from the same fraction or decimal

18 PoS **C** *Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects*

2m Award **2 marks** for **both** numbers placed correctly as shown.
1m Award **1 mark** for **any one** number placed correctly:

➤

Fred's number	Three times **larger** than Fred's number	Four times **smaller** than Fred's number
48	**144**	12
100	300	25

19 PoS **M** *Read, write and convert time between analogue and digital 12-hour clocks*

1m Award **1 mark** for:

➤ 3:50 **OR** 15:50

Accept:

➤ any other clear indication of this time, eg:
- 10 to 4

➤ 03:50

20 PoS **C** *Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate*

1m Award **1 mark** for:

➤ 2642

21 PoS **M** *Measure volume / capacity (l / ml)*

1m Award **1 mark** for:

➤ 280

22 PoS **F** *Solve simple measure and money problems involving fractions and decimals to two decimal places*

1m

Award **1 mark** for:

➤ 1.6

Accept:

➤ –1.6

23 PoS **C** *Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects*

a. 1m

Award **1 mark** for:

➤ 13

b. 1m

Award **1 mark** for:

➤ 2

24 PoS **C** *Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why; and*

Estimate and use inverse operations to check answers to a calculation

1m

Award **1 mark** for:

➤ 19

25 PoS **M** *Calculate different measures, including money in pounds and pence*

1m

Award **1 mark** for:

➤ 2

26 PoS **F** *Solve problems involving increasingly harder fractions to calculate quantities and fractions to divide quantities, including non-unit fractions where the answer is a whole number*

1m

Award **1 mark** for:

➤ 40

blank page

© NFER

Using the outcomes of the test

This section provides teachers with information to convert pupils' test scores into more useful measures of their attainment. For further information on tracking progress within and across years see page 52.

If the Year 4 mathematics test is undertaken and marked in line with the guidance in this booklet, then a standardised score and an age standardised score can be derived from a pupil's test score.

The starting point for these outcomes is to total a pupil's marks from the three mathematics booklets. This gives each pupil's total score or 'raw' score. A subtotal box is provided on each double page to assist in recording marks.

In order to obtain reliable outcomes, you should administer the test according to the guidance given in this booklet. It is particularly important that you observe the time limits given in the test instructions, and mark questions strictly according to the mark scheme. If not, the information derived from this section cannot be used reliably.

The questions in the test have been mapped to the National Curriculum Programmes of Study for mathematics. This mapping provides information about the discrete skill or process a pupil needs to use to answer each question effectively. Using these will allow you to track a pupil's progress. For diagnostic purposes this will enable you to look at distinct aspects of mathematics.

If you wish to record and explore patterns of performance on the test across your whole class, you may find it helpful to enter data into the NFER Tests Analysis Tool. For each question, the question level analysis report shows the average mark of pupils in the standardisation sample. It also shows which questions address each of the elements of the Programme of Study and will enable you to compare performance on different areas of the Programme of Study. This is available on the following website:

https://hub.nfer.ac.uk