

HIAS MOODLE+ RESOURCE

Year 6 Unit Plan 6.5

Number and Place Value

Multiplication and Division

Autumn Term

HIAS Maths Team
September 2026
Final version

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Overview

This document contains...

Year 6 Unit Plans linked to the Hampshire Medium Term Overview

Points to consider when using this resource:

These unit plans provide an example of how medium-term planning could be developed into units of work. These unit plans will need to be adapted to meet the needs of pupils. The unit plan provides an outline of a possible learning journey with suggestions of types of tasks that could be used. They also identify required prior learning, some common misconceptions and an indication of key skills pupils need to secure competency. It is assumed that teachers will make use of appropriate mathematical representations (manipulatives, visuals and symbolic) to support conceptual understanding for pupils alongside procedural fluency.

National Curriculum Links:

Number and Place Value

- read, write, order and compare numbers up to 10 000 000 and determine the value of each digit
- round any whole number to a required degree of accuracy
- use negative numbers in context, and calculate intervals across zero
- solve number and practical problems that involve all of the above.

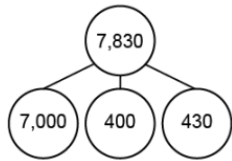
Multiplication and Division

Pupils should be taught to:

- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
- Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
- Perform mental calculations, including with mixed operations and large numbers
- Identify common factors, common multiples and prime numbers
- Use their knowledge of the order of operations to carry out calculations involving the four operations
- Solve problems involving addition, subtraction, multiplication and division
- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

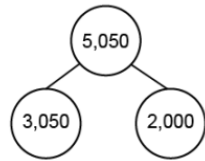
<p>In this unit, pupils consolidate and extend their understanding of number and place value by working with numbers up to 10,000,000, including reading, writing, ordering, comparing and rounding. They apply this knowledge alongside their understanding of negative numbers and Roman numerals to solve problems in context. Alongside this, pupils develop fluency in multiplication and division, using formal written methods (long multiplication and short/long division), interpreting remainders appropriately, and applying efficient strategies to solve a range of calculations and problems with accuracy and reasoning.</p>		<p>Notional Time:</p> <p>10 sessions</p>
<p>Check and Refresh - skills and knowledge that pupils need to know</p>	<p>Verbal coding- precise mathematical language to model during worked examples</p>	<p>Mastering Key Facts in Key Stage 2 – developing fluency and automaticity</p>
<p>Secure understanding of place value and partitioning.</p> <p>Round number to the nearest 10, 100 and 1000.</p> <p>Accurate procedural knowledge of short multiplication and short division.</p> <p>Understanding place value when multiplying and dividing by 10, 100 or 1000.</p>	<p>The previous multiple of 10/100/1000 is ____.</p> <p>The next multiple of 10/100/1000 is ____.</p> <p>The midpoint is ____.</p> <p>____ is closer to ____ than ____</p> <p>____ rounded to the nearest 10/100/1000 is ____.</p> <p>When I multiply by a two-digit number, I multiply by the ones and then by the tens, making sure my digits are in the correct place value.</p> <p>When I divide by a two-digit number, I estimate how many groups will fit and keep track of place value at each step.</p>	<p>Number adjustment</p> <ul style="list-style-type: none"> • $329 + 426 = 330 + 425$ • $1998 + 2005 = 2000 + 2003$ <p>Rounding and adjusting</p> <p>Recall multiplication and division facts for multiplication tables up to 12×12</p>
<p>Mathematical Concepts- important pieces of information learners should take away from the unit</p>	<p>Watch out for</p>	<p>DfE Ready -to- progress criteria</p>
<p>Read, write, order and compare numbers up to 10,000,000.</p> <p>Round numbers to an appropriate degree of accuracy.</p> <p>Use negative numbers in context and calculate across zero.</p> <p>Accurately use formal written methods of long multiplication, short division and long division.</p> <p>Perform efficient mental calculations with larger numbers.</p> <p>Understanding and interpreting remainders in context.</p>	<p>Pupils who have difficulty with non-standard partitioning.</p> <p>Pupils who round based on the final digit rather than understanding the closest multiple.</p> <p>Pupils who make errors when calculating intervals across zero.</p> <p>Pupils who misplace digits in long multiplication and forget the place holder.</p> <p>Pupils who make errors when recording or interpreting remainders.</p>	<p>5NPV-1 6NPV-1 5MD-4</p> <p>6NPV-2 6NPV-3 6MD-1</p> <p>Formative assessment questions - key questions to support pupil reasoning and teacher assessment</p> <ul style="list-style-type: none"> • What is the same and what is different? • What if I change...? • Can you give me an example of... and another...and another? • Which is harder and which is easier...? • If I know this, then what else do I know?

Visual coding: key representations



$$7,830 - 400 = 7,430$$

Figure 107: partitioning 7,830 into 7,430 and 400



$$2,000 + 3,050 = 5,050$$

Figure 108: partitioning 5,050 into 2,000 and 3,050

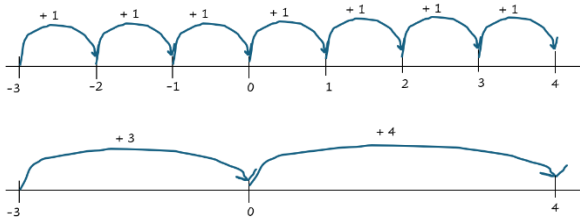
1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

+ 10
one-tenth
of the size

$$3.6 \times 10 = 36$$

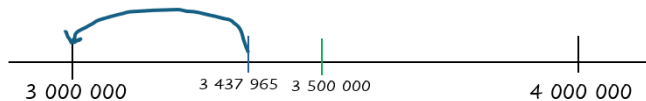
$$36 \div 10 = 3.6$$

Find the difference between -3 and 4.



Short division with place-value counters	Short division
<p>8 tens \div 4 = 2 tens 4 ones \div 4 = 1 one</p>	$\begin{array}{r} \text{10s} \quad \text{1s} \\ 4 \overline{) 21} \\ \underline{8} \quad \underline{4} \\ 0 \end{array}$

Round 3 437 965 to the nearest 1 000 000.



Short division

$98 \div 7$ becomes

$$\begin{array}{r} 14 \\ 7 \overline{) 98} \\ \underline{7} \quad \underline{2} \\ 0 \end{array}$$

Answer: 14

$432 \div 5$ becomes

$$\begin{array}{r} 86 \text{ r} 2 \\ 5 \overline{) 432} \\ \underline{20} \quad \underline{13} \quad \underline{2} \\ 0 \end{array}$$

Answer: 86 remainder 2

$496 \div 11$ becomes

$$\begin{array}{r} 45 \text{ r} 1 \\ 11 \overline{) 496} \\ \underline{44} \quad \underline{56} \quad \underline{55} \\ 1 \end{array}$$

Answer: $45 \frac{1}{11}$

Long division

$432 \div 15$ becomes

$$\begin{array}{r} 28 \text{ r} 12 \\ 15 \overline{) 432} \\ \underline{30} \quad \underline{30} \quad \underline{12} \\ 0 \end{array}$$

Answer: 28 remainder 12

$432 \div 15$ becomes

$$\begin{array}{r} 28 \\ 15 \overline{) 432} \\ \underline{30} \quad \underline{30} \quad \underline{12} \\ 0 \end{array}$$

Answer: $28 \frac{4}{5}$

$432 \div 15$ becomes

$$\begin{array}{r} 28.8 \\ 15 \overline{) 432.0} \\ \underline{30} \quad \underline{30} \quad \underline{12} \quad \underline{0} \\ 0 \end{array}$$

Answer: 28.8

Mathematics programmes of study: key stages 1 and 2

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Learning Journey – Number and Place Value

Autumn unit 6.1 (2 weeks)

I can count forwards or backwards in steps of powers of 10 for any given number up to 10 000 000.

I can recognise the place value of each digit up to 10 000 000.

I can reason about the location of a six-digit number on a number line.

I can reason about the location of a seven-digit number on a number line.

I can round any number up to 10 000 000 to the nearest 10, 100 and 1000.

I can round any number up to 10 000 000 to the nearest 10 000.

I can round any number up to 10 000 000 to the nearest 100 000.

I can round any number up to 10 000 000 to the nearest 1 000 000.

I can solve number and practical problems.

Autumn unit 6.5 (1 week)

I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.

I can round any whole number to a required degree of accuracy.

I can use negative numbers in context, and calculate intervals across zero.

I can read roman numerals to 1000 and recognise years written in Roman numerals.

I can solve number and practical problems.

Learning Journey – Multiplication and Division

Autumn unit 6.2 (3 weeks)	Autumn unit 6.5 (1 week)	Spring unit 6.8 (2 weeks)	Spring unit 6.10	Summer unit 6.12
<p>I can use place value, known and derived facts to multiply and divide mentally.</p> <p>I can solve problems using the distributive law to multiply two-digit numbers by one-digit.</p> <p>I can solve scaling problems involving multiplication and division.</p> <p>I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p> <p>I can use knowledge of the order of operations to carry out calculations involving the four operations.</p> <p>I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</p> <p>I can multiply a four-digit number by a one-digit number using short multiplication.</p> <p>I can multiply a four-digit number by a two-digit number using long multiplication.</p> <p>I can divide four-digit numbers by one-digit numbers using short division.</p>	<p>I can perform mental calculations, including with mixed operations and large numbers.</p> <p>I can multiply up to a four-digit number by a two-digit whole number using the formal written method of long multiplication.</p> <p>I can divide numbers up to 4 digits by a 2-digit number using the formal written method of short division.</p> <p>I can divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division.</p> <p>I can interpret remainders as whole number remainders.</p> <p>I can interpret remainders by rounding, as appropriate for the context.</p> <p>I can interpret remainders as fractions.</p>	<p>I can identify common factors, common multiples and prime numbers.</p> <p>I can recognise and use square numbers and cube numbers, and the notation for squared and cubed.</p> <p>I can use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</p> <p>I can perform mental calculations, including with mixed operations and large numbers.</p> <p>I can multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication.</p> <p>I can divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.</p> <p>I can divide numbers up to 4 digits by a 2-digit number using the formal written method of short division, where appropriate, interpreting remainders according to the context.</p>	<p><i>Repeated in addition and subtraction</i></p> <p>I can perform mental calculations, including with mixed operations and large numbers.</p> <p>I can use knowledge of the order of operations to carry out calculations involving the four operations.</p> <p>I can solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p> <p>I can solve problems involving addition, subtraction, multiplication and division.</p>	

Proposed lesson sequence to support development of mathematical concepts

Developing fluency and automaticity – ongoing daily practice

Mastering Key Facts in Key Stage 2

Autumn Ongoing Mental Fluency Practice

- I can adjust numbers to add efficiently, e.g. $329 + 426 = 330 + 425$
- I can round and adjust
- I can recall multiplication and division facts for multiplication tables up to 12×12
- I can read roman numerals to 1000.
- I can recognise years written in Roman numerals

Counting Fluency

- I can count forwards or backwards in steps of powers of 10 for any given number up to 10 000 000.

I can...

Mathematical Concepts, Key Skills and Suggested Tasks

5 Sessions – Number and Place Value

I can read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.

Pupils must be able to combine units from millions to hundredths to compose numbers, and partition numbers into these units, and solve related addition and subtraction calculations. Pupils need to experience variation in the order of presentation of the units, so that they understand, for example, that 5,034,000.2 is equal to $4,000 + 30,000 + 0.2 + 5,000,000$.

Pupils should be able to represent a given number in different ways, including using place-value counters, part-whole models and bar models, and write numbers shown using these representations. Pupils should then have sufficient understanding of the composition of large numbers to compare and order them by size.

Pupils also need to be able to solve problems relating to subtraction of any single place value part from a number, for example:

- $460,345 - 300 = \underline{\hspace{2cm}}$
- $8,179 - \underline{\hspace{2cm}} = 8,109$

As well as being able to partition numbers in the 'standard' way (into individual place value units), pupils must also be able to partition numbers in 'non-standard' ways, and carry out related addition and subtraction calculations, for example:

- $782,009 - 60,000 = \underline{\hspace{2cm}}$

Pupils can initially use place-value counters for support with this type of partitioning and calculation, but by the end of year 6 must be able to partition and calculate without them.

Fill in the missing symbols (< or >).

$7,142,294 \bigcirc 7,124,294$

$99,000 \bigcirc 600,000$

$6,090,100 \bigcirc 690,100$

$1,300,610 \bigcirc 140,017$

$589,940 \bigcirc 1,010,222$

Put these numbers in order from smallest to largest.

8,102,304

8,021,403

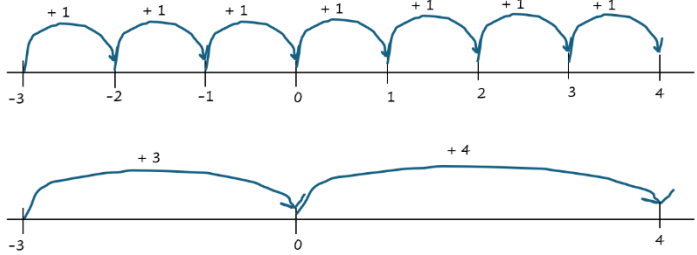
843,021

8,043,021

6NPV-2 Example assessment questions

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<p>I can round any whole number to a required degree of accuracy.</p>	<p>Use assessment from Unit 6.1 to determine the appropriate number of lessons needed to ensure pupils are secure in rounding.</p> <p>Continue to encourage pupils to identify the previous and next multiples and the midpoint as part of their reasoning. For some pupils, these steps may be essential to arrive at an answer, while for those who are more secure, they may be used selectively to justify and prove their thinking.</p> <p>Pupils who demonstrate secure procedural fluency should be supported to deepen their learning through application, reasoning, and problem-solving.</p>
<p>I can use negative numbers in context, and calculate intervals across zero.</p>	<p>In Year 5, pupils were introduced to negative numbers through meaningful real-life contexts such as temperature, distances above and below sea level, and floors in a building that extend underground. These contexts help pupils make sense of values smaller than zero.</p> <p>Pupils can use both vertical and horizontal number lines to compare and order positive and negative numbers. Emphasise that numbers increase as you count forwards from any starting point and decrease as you count backwards. Support pupils in recognising that -3 is greater than -9 because it is closer to zero. Real-life contexts, such as comparing temperatures, can further reinforce this understanding.</p> <p>Once pupils are confident comparing positive and negative numbers, they can progress to finding the difference between them. Using vertical and horizontal number lines, pupils explore the difference as the number of steps between two values. Some pupils may need to count in ones through zero before developing more efficient strategies, such as jumping to and from zero and combining the distances.</p> <div style="text-align: center;"> <p>Find the difference between -3 and 4.</p>  </div>
<p>I can read roman numerals to 1000 and recognise years written in Roman numerals.</p>	<p>Learning Roman numerals deepens pupils' understanding of how number systems can be structured differently, reinforcing the idea that symbols represent quantities. It also develops an understanding of additive and subtractive relationships (for example, $IV = 5 - 1$ and $IX = 10 - 1$). This supports pattern recognition, structural thinking, and the generalisation that when a smaller numeral appears before a larger one, it indicates subtraction. These transferable reasoning skills contribute to pupils' developing algebraic thinking later in their mathematical journey.</p> <p>Making explicit connections to Roman numerals in the real world - such as on clock faces, buildings and landmarks, memorials and monuments, and in books, films, and television - helps pupils to read and interpret information they will genuinely encounter. Opportunities such as writing the date using Roman numerals or adding Roman numeral digit cards to the class number line further support recognition and fluency.</p>

I can solve number and practical problems

Encourage pupils to solve problems that apply the skills developed within this unit. The purpose of this step is not to provide an increasing quantity of problems for pupils complete, but to improve the quality of their problem-solving behaviours.

Select routine and non-routine problems that allow metacognitive processes to be modelled. This approach shifts attention away from simply finding an answer and towards understanding the pathway through a problem: identifying relevant information, recognising structure, selecting appropriate operations, and justifying methods.

By deliberately choosing tasks that expose underlying structure, pupils develop transferable strategies that can be applied across a wide range of contexts. This supports deeper mathematical thinking, stronger metacognition, and greater confidence when approaching unfamiliar problems.

Place Value:

Olivia is thinking of a number.

My number

- is greater than 236
- is less than 245
- has a 3 in the tens' place
- is an even number



What number is Olivia thinking of?

Deepen:

- Which clue was most useful? Why?
- Convince me there is only one possible answer.
- Which numbers did you eliminate first? Why?
- What did you notice about the numbers that did not work?
- What if Olivia changed one clue so that there were two possible answers? Which clue would you change?

Negative numbers:

Here is a number sequence.

75 50 25

Write the next two numbers in the sequence.

Deepen:

- What is changing each time? What stays the same?
- Show the sequence on a number line. What do you notice?
- What if you were asked for the 10th number in the sequence?
- Can you create a different sequence that follows the same rule?

Roman numerals:

Complete the table.

Number	Roman Numerals
LX	60
LXXVI	
XCIII	

Deepen:

- Which numerals were combined with addition? Which used subtraction?
- Which part of the numeral did you look at first? Why?
- Always/sometimes/never: if a numeral include X, the value must be at least 10.
- Which symbols most often? Why might that be?
- Place the numbers on a number line and label them with Roman numerals.

5 sessions – Multiplication and Division

I can multiply up to a four-digit number by a two-digit whole number using the formal written method of long multiplication.

This step builds on pupils' understanding from Unit 6.2 and brings together:

- secure place value understanding up to thousands
- short multiplication skills
- correct alignment of multiple partial products
- accurate addition of those partial products

If pupils are not secure here, it indicates gaps not just in multiplication, but in place value, regrouping and written calculation discipline.

The Mathematics Programmes of Study, within the Primary National Curriculum contains an appendix which sets out some examples of formal written methods for all four operations to illustrate the range of methods that could be taught. This is detailed in Unit 6.2.

Design tasks that encourage pupils to reason mathematically, using precise language to justify their thinking. Where appropriate, encourage pupils to explain, prove, or represent their thinking, checking their answer for reasonability. It is also important to provide pupils with opportunities to solve missing digit problems or part completed examples using the formal written method of long multiplication to secure their understanding and develop their reasoning.

$$\begin{array}{r} 6312 \\ \times 14 \\ \hline \end{array}$$

Show your method	
------------------------	--

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I can divide numbers up to 4 digits by a 2-digit number using the formal written method of short division.

In this step pupils are expected to:

- Take a large number (up to 4 digits, e.g. 3,472)
- Divide it by a 2-digit number (e.g. 24)
- Use a structured, written method (short division) rather than mental strategies or chunking
- Record their thinking clearly and systematically

It is about accuracy, efficiency, and consistency, not speed.

The Mathematics Programmes of Study, within the Primary National Curriculum contains an appendix which sets out some examples of formal written methods for all four operations to illustrate the range of methods that could be taught. It is not intended to be an exhaustive list, nor is it intended to show progression in formal written methods. For example, the exact position of intermediate calculations (superscript and subscript digits) will vary depending on the method and format used. The Progression in Calculation methods taught and used by pupils should align to your school's policy and agreed progression.

Short division

98 ÷ 7 becomes

$$\begin{array}{r} 14 \\ 7 \overline{) 98} \\ \underline{7} \\ 28 \\ \underline{28} \\ 0 \end{array}$$

Answer: 14

432 ÷ 5 becomes

$$\begin{array}{r} 86 \text{ r } 2 \\ 5 \overline{) 432} \\ \underline{40} \\ 32 \\ \underline{30} \\ 2 \end{array}$$

Answer: 86 remainder 2

496 ÷ 11 becomes

$$\begin{array}{r} 45 \text{ r } 1 \\ 11 \overline{) 496} \\ \underline{44} \\ 56 \\ \underline{55} \\ 1 \end{array}$$

Answer: $45 \frac{1}{11}$

[Mathematics programmes of study: key stages 1 and 2](#)

Design tasks that encourage pupils to reason mathematically, using precise language to justify their thinking. Where appropriate, encourage pupils to explain, prove, or represent their thinking, checking their answer for reasonability. It is also important to provide pupils with opportunities to solve missing digit problems or part completed examples using the formal written method of short division to secure their understanding and develop their reasoning.

Complete this division.

$$\begin{array}{r} \square 64 \text{ r } 1 \\ 12 \overline{) 436 \square} \end{array}$$

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I can divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division.

In this step, pupils use long division to:

- break the calculation into manageable, visible steps
- show how and why the answer is built

Long division:

- records estimation
- records subtraction of known multiples
- shows how remainders arise
- prepares pupils for decimal division

This is particularly important when dividing by numbers like 24, 36, or 47, where mental recall alone is unreliable.

As detailed within the previous step, the Mathematics Programmes of Study, within the Primary National Curriculum contains an appendix which sets out some examples of formal written methods for all four operations to illustrate the range of methods that could be taught. The Progression in Calculation methods taught and used by pupils should align to your school's policy and agreed progression.

Long division

432 ÷ 15 becomes

$$\begin{array}{r}
 28 \text{ r } 12 \\
 15 \overline{) 432} \\
 \underline{300} \\
 132 \\
 \underline{120} \\
 12
 \end{array}$$

Answer: 28 remainder 12

432 ÷ 15 becomes

$$\begin{array}{r}
 28 \\
 15 \overline{) 432} \\
 \underline{300} \quad 15 \times 20 \\
 \underline{132} \\
 \underline{120} \quad 15 \times 8 \\
 12
 \end{array}$$

$$\frac{12}{15} = \frac{4}{5}$$

Answer: $28\frac{4}{5}$

432 ÷ 15 becomes

$$\begin{array}{r}
 28.8 \\
 15 \overline{) 432.0} \\
 \underline{300} \quad \downarrow \\
 \underline{132} \quad \downarrow \\
 \underline{120} \quad \downarrow \\
 120 \\
 \underline{120} \\
 0
 \end{array}$$

Answer: 28.8

[Mathematics programmes of study: key stages 1 and 2](#)

Careful progression using the long division formal method should be take place, initially providing pupils with varied practice to divide 3-digits by a 2-digit whole number **without any remainder**, before progressing on to divide 3-digits by a 2-digit whole number **with remainders**. When pupils are confident, examples of dividing 4-digit numbers by a 2-digit whole number without and with remainders should then be introduced.

I can interpret remainders as whole number remainders.

I can interpret remainders by rounding, as appropriate for the context.

Earlier in KS2, pupils often:

- calculate a remainder
- but don't think about what it means

In Year 6, pupils must learn that:

- remainders need interpreting, not ignoring
- the context of the question determines how the answer should be presented

Design tasks that provide pupils the opportunity to interpret remainders as whole numbers within the context of the problem, considering whether they need to round their answer up or down, depending on the context.

For example, in the following KS2 SATs question, pupils will need to calculate $980 \div 6$ to solve this problem (163 remainder 2), however the first part of the problem asks: how many boxes can the farmer **fill** using 980 eggs? Therefore pupils would need to round down (163) and ignore the remainder in this context.

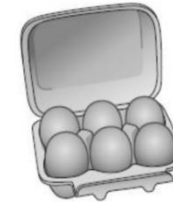
If the question asked how many boxes would be needed to hold 980 eggs (which are packed in 6s), then the answer would be rounded up to 164, providing an additional box to hold the 2 remaining eggs.

Multiplication and Division	
<p>Starting Skills</p> <ol style="list-style-type: none"> $10 \div 5 =$ $15 \div 5 =$ $12 \div 5 =$ $14 \div 5 =$ $21 \div 5 = 4 \text{ r } \square$ $29 \div 5 = 5 \text{ r } \square$ $12 \div 3 =$ $9 \div 3 =$ $10 \div 3 =$ $17 \div 3 = 5 \text{ r } \square$ 	<p>2025 Key Stage 2: Paper 2 Reasoning, Question 9</p> <p>9 Ali has 35 red counters. He divides them into groups of 3.</p> <p>What is the greatest number of groups of 3 he can make?</p> <p><input type="text"/></p> <p>1 mark</p>
<p>Deepen</p> <p>Ali has 35 red counters. He wants to divide them into groups so that no counters are left over.</p> <p>What are all the possible sizes of groups he could make, and how many groups would there be?</p>	<p>Sentence Stems</p> <ul style="list-style-type: none"> If I know $\square \times \square = \square$, then I know $\square \div \square = \square$. \square equal groups of \square with a remainder of \square. <p>What strategy can you use to help you?</p>

Year 6 SATs Revision 2025 materials
Reasoning and Intelligent Practice Tasks

A farmer is packing eggs.

Each box holds **six** eggs.



The farmer has 980 eggs to pack.

How many boxes can the farmer **fill** using 980 eggs?

How many eggs will be left over?

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I can interpret remainders as fractions.

This step is about helping pupils move beyond seeing a remainder as “just the bit left over” and instead expressing it as a meaningful part of a whole.

In simple terms

- When a division does not divide exactly, the remainder can be written as a fraction of the divisor.

How it works

Take this division:

$$13 \div 4$$

Using short division:

- 4 goes into 13 **3 times**
- There is a **remainder of 1**

So we write:

$$13 \div 4 = 3 \text{ remainder } 1$$

To interpret the remainder as a fraction:

- The remainder (**1**) becomes the numerator
- The divisor (**4**) becomes the denominator

So:

$$13 \div 4 = 3\frac{1}{4}$$

Design tasks that provide pupils the opportunity to interpret remainders as fractions, considering the context of the problem.

Mrs Mills has **940** seeds to plant into trays.

She plants **12** seeds in each tray.

The last tray is not full.



What **fraction** of the last tray is filled?

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- Entry and Exit tickets: [Entry and Exit Tickets](#)
- Interleaving, Recall and Retrieval: [Interleaving, Recall and Retrieval \(hants.gov.uk\)](#)
- Connect4Maths: [Connect4Maths - Primary](#)
- Moderation Documents: [Moderation Documents](#)
- KS1 Key Facts: [Key Stage 1 Key Facts Document](#)
- Mastering Times Tables: [Mastering Times Tables](#)

NCETM Resources to support:

- Exemplification of ready -to -progress criteria (RTPS): [Exemplification of ready-to-progress criteria | NCETM](#)
- NCETM Professional Development materials spine 1: [Number, Addition and Subtraction | NCETM](#) ;
- The NCETM Mastery Task booklets can be used as a source of tasks to support end of year teacher assessment for both EXS and GDS [Teaching for Mastery Booklets Yr1-6](#)

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