Janvrin School Calculation Policy

Helping your child with

Maths

A booklet for parents

Introduction

The purpose of this booklet is to outline the various calculation methods that children are taught as they progress through Janvrin school, many of which may look different to the methods that you were taught at school. As children progress through the school, they are building up a bank of strategies that can be applied when appropriate. Each strategy can be refined or extended to suit the calculation needed. We hope the explanations and examples of strategies will help you to assist your child at home.
If you are still unsure or would like further information about the way we teach maths at Janvrin School, please contact your child's class teacher.

Overview
Janvrin School uses the Making Maths Make Sense (MMMS) approach to teaching and learning maths. This approach focuses on using physical apparatus (usually cups in the first instance) to ensure children understand exactly what is happening when a calculation is carried out. As the children move through the school they move away from the physical representation but are still encouraged to think about the question in the same way. Children are allowed access to physical resources at any time if they feel they will be helpful.

An important element of the MMMS approach is the vocabulary used to describe the numbers and operations. Below is a summary of the key vocabulary and definitions your child will be familiar with:

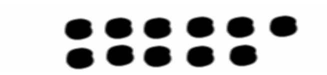
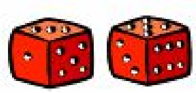
Numbers:
Units (or 'ones') are usually referred to as **'cups'** as this relates to the physical apparatus used.
'Tens' are usually referred to as **'ty'**s , e.g.: 10 = 1ty, 20 = 2ty, 30 = 3ty, 40 = 4ty etc

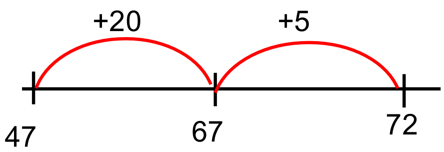
Operations:
+ (add) = "Get ready to get some more."
- (subtract) = "Get ready to take some away."
x (multiply or times) = "I love this so much I am going to do the same thing lots of times."
÷ (divide or share by) = "Think about making piles."

With addition, subtraction, multiplication and division, children are taught to interpret questions at 3 levels:
- Maths story (2 + 3 = 5)
- Real story (2 cups + 3 cups = 5 cups.)
- Real-life story (There were 2 birds in the tree then another 3 birds arrived. Now there are 5 birds in the tree.)

Addition

Children are taught to understand addition as combining sets and counting on. Calculations are put into practical contexts so that the child sees the relevance of the method they are learning and will be able to choose the best method for a calculation.

" One, two, three, four…. five, six, seven, eight, altogether" 	Children practically count the objects in two sets to find the total amount altogether.
2 + 3 = At a party, I eat two cakes and my friend eats three. How many cakes did we eat altogether?  	Children could draw a picture to help them work out the answer or use practical equipment such as cups to help them.
6 + 5 = Six people are on the bus. Five more people get on at the next stop. How many people are on the bus now?  or 	Children could use dots or tally marks to represent objects.
5 + 3 = What is the total of the numbers on these two dice?  3 + 5 = 8 5 + 3 = 8	Children are taught to understand that the addition can be done in any order, developing awareness that it is often more efficient to put the larger number first.
12 + 9 = 12 birds are sitting on the grass. Nine more fly to join them. How many are there altogether? 12 + 10 = 22 22 - 1 = 21	Children use number bonds to help them work out questions like this quickly.

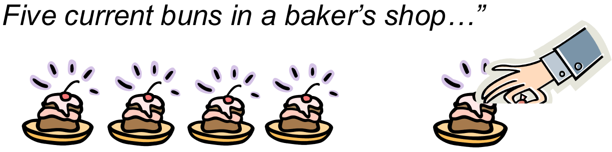
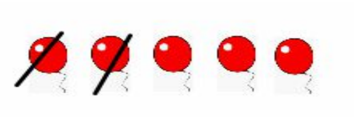
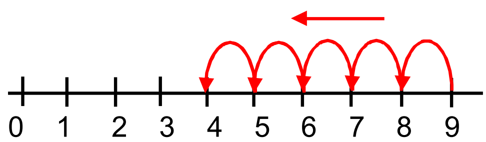
47 + 25 = My sunflower is 47cm tall. My friend's is 25cm taller. How tall is my friend's sunflower?  	Drawing an empty number line helps children to record the steps they have taken in a calculation. Start on 47, +20, +5. This is more efficient than counting on in ones. Empty number lines can be used with numbers of any size. Children are encouraged to visualise these number lines in their heads to move towards solving problems mentally.
87 + 64 = One shelf measures 87 cm and another shelf measures 64cm. What is their total length in cm and m? (80 + 60) + (7 + 4) 140 + 11 = 151cm or 1.51m	By partitioning (splitting) both numbers into tys and cups, each part can be added separately and then the answers combined to give the total. We remember that we know that 8 + 6= 14, so we know 8 ty (80) add 6 ty (60) is 14 ty (140)

As children's mental maths skills develop, they are encouraged to find and practice methods which work well for them.

212 + 546 = There 212 boys and 546 girls in a school. How many children are there altogether? 212 546 + 758	Children are taught written methods for those calculations they cannot do mentally. The children need to have a secure grasp of place value and understand the importance of placing digits with the same value underneath each other in columns. The digits are always added from right to left (e.g. cups, then tys, then hundreds, etc.)
2685 + 1746 = 2685 people visited the museum last year. The number of visitors increased by 1546 this year. How many people visited this year? 2 6 8 5 + 1 7 4 6 4 4 3 1 1 1 1	The units/cups column is added first with the ten/ty carried over and placed underneath the tens/ty column. The tens/ty column is added up with the hundred carried over and placed underneath the hundreds column. The same process is repeated with the hundreds column and then the thousands column is added up. A secure understanding of this method allows it to be applied to numbers with decimal places and to real-life problems such as money.

<u>Subtraction</u>

Children are taught to understand subtraction as taking away (counting back) and finding the difference (counting on/up). Calculations are put into practical contexts so that the child sees the relevance of the method they are learning and will be able to choose the best method for a calculation.

" Five current buns in a baker's shop…" 	Through songs, nursery rhymes and practical activities children learn to understand subtraction as "taking away" or "less".
5 – 2 = I had five balloons. Two burst. How many do I have left?  *Take away* A teddy bear costs £5 and a ball costs £2. How much more does the bear cost?  *Find the difference*	Drawing a picture helps children to visualise the problem. The use of practical equipment, such as cups or counters, helps to model the problem.
8 – 3 = We baked eight biscuits. I ate three. How many were left?  *Take away* Lisa has eight felt tip pens and Tim has three. How many more does Lisa have?  *Find the difference*	Using dots or tally marks is quicker than using a picture. Using practical equipment continues to be helpful to check answers.
9 – 5 = I had nine pence. I spent five pence. How much did I have left? 	The number line or ruler can be used for counting back or jumping back. The number line can also be used for counting on.

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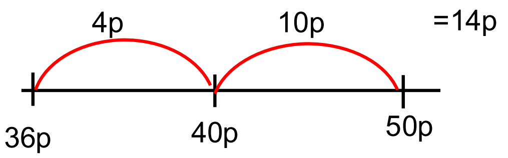
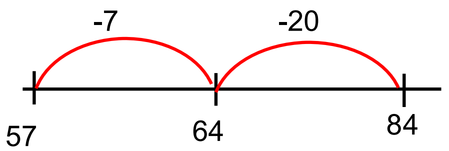
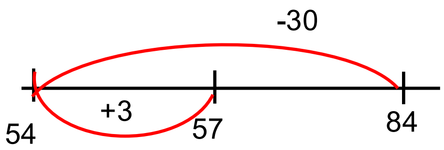
<tr>
<td>50 – 36 =
I spent 36p in a shop. How much change did I get from 50p?

36p + _____p = 50p


</td>
<td>Counting on using a number line is particularly useful in calculating change.</td>
</tr>
<tr>
<td>84 – 27 =
I cut 27cm off a ribbon measuring 84 cm. How much is left?




</td>
<td>Children can count back using an empty number line. This is a good way to record the steps they have taken and shows their understanding of how numbers can be partitioned (split) to make a calculation easier - (start on 84, - 20, -7)

Children can also use the compensation method – taking away too much and adding back. In this example, -30 and + 3 back on.</td>
</tr>
</table>

As children's mental maths skills develop, they are encouraged to find and practice methods which work well for them.

<table>
<tr>
<td>754 – 121 =

754 cars were waiting to load onto the car ferry. 121 drove on. How many were still waiting?

754-
<u>121</u>
<u>633</u></td>
<td>Children progress onto vertical methods of subtraction where there is no need for decomposition (borrowing). The importance of placing digits with the same value (e.g. tys/tens or cups/units) in the same column is paramount.

Children are taught that they must always begin with the cups/units then move onto the tys/tens column etc.

They are taught to “read” the question from the top to the bottom, e.g. 4-1, 50-20, 700-100 using the actual value of the digit.</td>
</tr>
</table>

6463 – 2626 = The second hand car cost £6463. The teacher only had £2626. How much did she need to borrow to pay for the car? 6463 _ 2626 ____ $64\,^{5}\cancel{6}\,^{1}3$ _ 26 2 6 3 7 $^{5}\cancel{6}\,^{1}4\,^{5}\cancel{6}\,^{1}3$ _ 2 6 2 6 3 8 3 7	Decomposition ("borrowing") is required when subtracting the lower number from the one directly above it is not possible. In this example, 3-6 is not possible. the 6ty is changed into a 5ty and the extra 'ty' is moved to the cups column (turning the 3 into 1ty3 or 13). This column can now be resolved (13 - 6 = 7). The next column (the ty's) can be resolved without issue (5ty - 2ty = 3ty). The hundreds column cannot be resolved at this time as 400 - 600 is not possible, In order to continue , the 6 thousand is changed into a 5 thousand and the extra thousand is moved to the hundreds column (turning the 4 hundred into 14 hundred). This column can now be resolved (14 hundred - 6 hundred = 8 hundred). 5 thousand - 2 thousand = 3 thousand.
Josh had £64.03 for his birthday. He has spent £21.86 on a game. How much does he have left? $6\,^{3}\cancel{4}.\,^{1}0\;3$ _ 2 1. 8 6 ______ $6\,^{3}\cancel{4}.\,^{91}\cancel{0}\;^{1}3$ _ 2 1. 8 6 4 2. 1 7	Remember that if you are "borrowing" and the number is a zero you will have to borrow across more than one place value. You cannot "jump" (miss out) columns. I cannot do 3 - 6 so I look to the next number but there is nothing there to "borrow", so I look to the next number. I change the 4 into a 3 then give the extra one to the zero, making it 10. This still has not enabled me to resolve my problem with 3-6, so I now change the 10 into a 9 and move the one to the 3 making 13. The question can now be resolved.

Multiplication

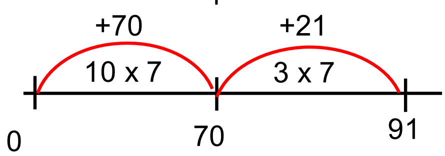
Multiplication Methods

Children are taught to understand multiplication as repeated addition, and later as scaling. Calculations are put into practical contexts so that the child sees the relevance of the method they are learning.

<table>
<tr><td>2 x 4 =
Each child has two eyes. How many eyes do four children have?

2 eyes four times = 8 eyes 2 + 2 + 2 + 2</td><td>Drawing a picture is a helpful way to visualise a problem.</td></tr>
<tr><td>5 x 3 =
There are five cakes in a pack. How many cakes are in three packs?

5 + 5 + 5
5 cakes three times = 15 cakes.</td><td>Dots or tally marks are often drawn in groups.

This shows groups of five, 3 times. The children can clearly see the repeated addition.</td></tr>
<tr><td>60 x 4 = 240</td><td>Understanding of place value leads the children to understand that if 6 x 4 = 24, then 6ty (60) x 4 = 24ty (240)</td></tr>
<tr><td>13 x 7 =
There are 13 biscuits in a packet. How many biscuits in seven packets?


13 x 7 = (10 x 7) + (3 X 7)
= 70 + 21
= 91</td><td>When a calculation is too tricky to do mentally it can be broken down into smaller, more manageable chunks.</td></tr>
<tr><td>6 x 124 = 744
124 books were sold. Each book cost six pounds. How much money was taken?

x | 6
100 | 600
20 | 120
4 | 24
744</td><td>This is called the grid method. 124 is partitioned (split) into hundreds, tens and units. Each part is then multiplied by six. The answers are then added together vertically to reach the final answer.</td></tr>
</table>

<table>
<tr>
<td>72 x 34 = 2448
A cat is 72 cm long. A tiger is 34 times longer. How long is the tiger?

<table>
<tr><th>x</th><th>70</th><th>2</th></tr>
<tr><td>30</td><td>2100</td><td>60</td></tr>
<tr><td>4</td><td>280</td><td>8</td></tr>
<tr><td></td><td>2380</td><td>68</td></tr>
</table>

2380
+ 68
2448</td>
<td>The grid method also works for ‘long multiplication’. The numbers are partitioned (split up) and each part is multiplied separately and then each answer is added together.
The grid method can be used for numbers of any size, including decimals.</td>
</tr>
<tr>
<td>28 x 7 = 196
In a school there were seven classes each with 28 children. How many children were in the school?

28
x 7
196
5</td>
<td>From the grid method, the children begin to use more standard written methods, working vertically. Children are reminded that digits of the same value must be underneath each other.
Starting with the units, 8 x 7 = 56. The 6 goes in the cups/units column and the 5 tys/tens are carried underneath the tys/tens column. 2 tys x 7 = 14tys, add 5 more tys gives 19tys or 190.
This method is used for 1 digit multiplied by any number of digits.</td>
</tr>
<tr>
<td>36 x 24=
There are 24 packets of exercise books. In each packet there are 36 books. How many books altogether?

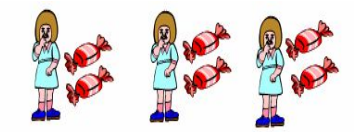
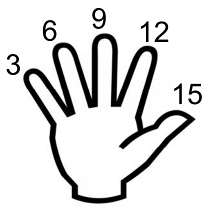
36 x
24
1 44
~~2~~ +
7 20
~~1~~
8 64</td>
<td>All the previous work builds up to using the more compact standard written method for long multiplication.
4 x 6 =24 (the 2ty is placed below the space in the ty column).
4 x 30 = 12ty plus the 2ty from before, equals 14ty or 140. The zero is ‘hiding’ behind the 4 in the cups column. (The 2ty which was placed below the ty column in the first step is crossed out when it has been added on.)
20 x 6 = 120 (the 1 hundred is placed below the space in the hundred column).
20 x 30 = 600. Plus the 100 from before equals 700. The two zeros are ‘hiding’ behind the 20. (The 1 hundred which was placed below the hundreds column in the first step is crossed out when it has been added on).

Then two rows are now added vertically to give a final answer.

A secure understanding of these methods enables multiplication with decimals.</td>
</tr>
</table>

Division

Children are taught to understand division as putting a number into piles of a given size. Multiplication and division are interlinked and a secure knowledge of times tables is key to confidence with division. Calculations are put into practical contexts so that the child sees the relevance of the method they are learning.

6 ÷ 2 = 3 There are six sweets. How many children can have two each?  6 cups put into piles of 2 cups = 3 piles.	Drawing pictures make it easy for the child to visualise the problem and often makes it easier to solve. Practical equipment such as cups is also used to model and solve the problem.
12 ÷ 4 = 3 I have 12 apples to put into packs of 4. How many packs can I make? 12 cups put into piles of 4 cups = 3 piles. 	Dots or tally marks can split up into groups. This then clearly shows how many groups or how many in each group.
15 ÷ 3 = 5 How many threes in 15? 15 cups put into piles of 3 cups = 5 piles. 	To work out how many threes there are, children can use their fingers to count up in groups of three.
21 ÷ 3 = 7	Now that the link with multiplication and times tables is clear we move towards looking at 21 and thinking about groups of three to make 21, and know that getting 3 seven times (3x7) gives us 21.
210 ÷ 3 = 70	Understanding of place value leads the children to understand that if 21 ÷ 3 = 7 then 21ty ÷ 3 = 7ty 210 ÷ 3 = 70

<table>
<tr>
<td>975 ÷ 5 = 195

975 chairs are needed for a concert. They are arranged in rows of five. How many rows of chairs are needed?

$\begin{array}{c|cc} \div & & \\ \hline 5 & \cancel{975} & 500 \\ & \cancel{475} & 400 \\ & \cancel{75} & 50 \\ & 25 & \end{array}$

$\begin{array}{c|cc} \div & 195 & \\ \hline 5 & \cancel{975} & 500 \\ & \cancel{475} & 400 \\ & \cancel{75} & 50 \\ & 25 & \end{array} \qquad \begin{array}{lr} 5\times & 100 \\ 5\times & 80 \\ 5\times & 10 \\ 5\times & \underline{5} \\ & \underline{195} \end{array}$</td>
<td>Children use the grid method with their knowledge of times tables to solve division problems involving large numbers.
This example requires the 5 times table.
Children consider how many 5’s they can take out of 975. They use their understanding of place value to deduce that if 50 is in the 5 times table then 500 will be to.
The 975 is crossed out and replaced with 500.
Since there must be 975 cups on the maths table at all times, the remaining 475 are placed on the next row.
“How many 5’s can I take out of 475? As 40 is in the 5 times table I know that 400 will be there to.” The remaining 75 are placed on the next row.
“How many 5’s can I take out of 75? I know that 50 is in the 5 times table so I will change the 75 into a 50 and put the remaining 25 on the next row.”
Next to the maths table the child records how many lots of 5 give each number. This is then added to reach the final answer which is recorded on the top of the maths table.</td>
</tr>
<tr>
<td>975 ÷ 5 = 195

975 chairs are needed for a concert. They are arranged in rows of five. How many rows of chairs are needed?

$\begin{array}{r} 1 \\ 5\overline{\smash{)}\,9^{4}75} \end{array}$

$\begin{array}{r} 1\,9 \\ 5\overline{\smash{)}\,9^{4}7^{2}5} \end{array}$

$\begin{array}{r} 1\,9\,5 \\ 5\overline{\smash{)}\,9^{4}7^{2}5} \end{array}$</td>
<td>When children are confident with the grid method they move onto ‘short’ division.

How many 5’s in 9? = 1 remainder 4

How many 5’s in 47? = 9 remainder 2

How many 5’s in 25? = 5 with no remainder</td>
</tr>
<tr>
<td>476 ÷ 3 =

476 children are organised into groups of 3. How many groups will there be?

$\begin{array}{r} 1\,6\,5\ \ r1 \\ 3\overline{\smash{)}\,4^{1}7^{1}6} \end{array}$</td>
<td>Dividing where there is a remainder.

How many 3’s in 4? = 1 remainder 1

How many 3’s in 17? = 6 remainder 1

How many 3’s in 16? = 5 remainder 1

Children are taught to interpret remainders according to the context of the question. They also learn to record remainders as fractions. In this example this would be

165 $^{1}/_{3}$ The remainder
The number needed for a whole group
How many whole groups can be made</td>
</tr>
</table>

390 ÷ 15 = 26	For division by two digit numbers children use ‘long’ division
0 15 ⟌ 390	How many 15’s in 3? = Zero. Record this above the division sign.
02 15 ⟌ 390 30▼ 90	How many 15’s in 39? = 15 x 2 = 30. Write the 30 under the 39 and subtract. Record the 2 above the division sign. Bring down (▼) the next number.
026 15 ⟌ 390 30▼ 90 90 0	How many 15’s in 90? = 15 x 6 = 90. Write the 90 below the 90 and subtract. The zero tells us there is no remainder. Record the 6 above the division sign.

Times tables

A good knowledge and quick recall of times tables is essential to children’s mathematical progress. The children are taught up to 12x12. The aim is for all children to know all of their times tables by the end of year 4. In order to achieve this, parents will need to spend time at home practicing their tables and related division facts.

Children will be regularly tested on their knowledge of tables and related division facts.

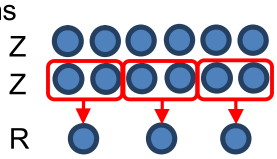
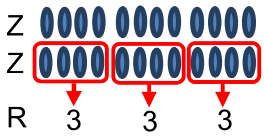
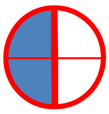
Tables are worked through in strict order (10,2,5,3,4,6,7,8,9,jumbled,11,12) and are tested using two different methods - Rapid Recall and Application Tests.

The Rapid Recall test is given verbally and children have 5 seconds to write the answer or say the answer to each question.
When a child passes the Rapid Recall test (by getting all 15 questions correct) they move onto the Application Test. This is a set of written word problems which check the understanding of which operation is required (x or ÷), such as “Bob, Lucy and Michael each get 10p pocket money each week. How much do they get altogether?” Children who find reading the questions tricky can have the questions read to them. The time given to complete all of the questions is 5 minutes.

When a child completes both the Rapid Recall and the Application tests for a given times table they are presented with a certificate in Assembly and move on to the next times table. When all tables are completed children will be given regular “check-up” tests to ensure they still have fast and accurate recall.

Fractions, Decimals and Percentages

The MMMS approach uses a technique called 'Zoom, Zonk, Replace' or 'ZZR' to teach children how to calculate fractions and percentages.

Write simple fractions e.g. ½ of 6 = 3 	Start with physical apparatus and 'act' the sharing out. Zoom 6 cups. Zonk into piles of 2 cups. Replace with 1 cup. Answer = 3
Find non-unit fractions with small denominators e.g. ¾ of 12 = 9 	Move from physical cups to simple drawings when numbers become larger but still use ZZR.
Add and subtract fractions with the same denominator, proper fractions only. $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$ $\frac{5}{8} - \frac{3}{8} = \frac{2}{8}$	Extend understanding that the rules of addition and subtraction apply to any concept. 3 + 4 = 7 so 3 of anything + 4 of anything make 7 of anything. E.g. 3 of these things called eighths add 4 of these things called eighths equals 7 of these things called eighths. This method ensures that children do not add the denominator as well.
Recognise and show, using diagrams, equivalent fractions with small denominators e.g. $\frac{2}{4} = \frac{1}{2}$ 	Children are introduced to equivalent fractions using shapes and simple diagrams. This understanding that the same amount can be shown in different ways is known as 'Same Value, Different Appearance' or 'SVDA' in MMMS teaching.
Add and subtract with the same denominator, including improper fractions $\frac{5}{3} + \frac{1}{3} = \frac{6}{3}$	This is calculated in exactly the same way as when using proper fractions.
Solve problems using fractions to calculate quantities: $\frac{3}{4}$ of a class of 12 are going on a school trip. How many children are going?	Extract the information from the problem and apply previously acquired skills of ZZR. Z 12 Z $\cancel{4}$ $\cancel{4}$ $\cancel{4}$ R 3 3 3 = 9
Solve simple measures and money problems involving fractions and decimals to 2 decimal places. e.g. You buy some crisps for 70p and a drink for £1.30. How much did you spend? 0.70 1.30+ 2.00 =£2.00 or 200p	Children are taught to understand that measures need to be in the same units before calculating.

My dad is 1.7m tall and I am 110 cm tall. How much taller is my dad than me? 170 <u>110-</u> <u>060</u> =60cm or 0.6m	
Recognise mixed numbers and improper fractions and convert from one form to the other $\frac{6}{5} = 1\ \frac{1}{5}$ The number of fifths remaining. one whole cup ($\frac{5}{5}$)	By using physical apparatus such as cups, children can see that there are two halves in a whole cup, or four quarters, or five fifths, etc This enables them to change improper (‘top heavy’) fractions into mixed numbers.
Find equivalent fractions x 2 x 10 $\frac{1}{2} = \frac{2}{4}$ $\frac{7}{10} = \frac{70}{100}$ x 2 x 10	To keep equivalence the numerator and denominator need to be scaled by the same multiplier. (What you do to the top you do to the bottom.)
Add and subtract fractions where one denominator is a multiple of the other $\frac{3}{4} + \frac{1}{8}$ x 2 $\frac{3}{4} = \frac{6}{8}$ x 2 $\frac{6}{8} + \frac{1}{8} = \frac{7}{8}$	Children use the skills above to make the denominators in each fraction the same. In this example, it is easy to change the first fraction ($\frac{3}{4}$) into eighths by multiplying the top and the bottom by 2. The resulting equivalent fraction ($\frac{6}{8}$) can then be added to the 8, giving a final answer of $\frac{7}{8}$
Multiply proper fractions and mixed numbers by whole numbers. <u>Ex. 1</u> 5 x ½ ½ + ½ + ½ + ½ + ½ = 2 ½ <u>Ex. 2</u> 2 ½ x 3 = 2 ½ + 2 ½ + 2 ½ =6 + 1½ =7 ½	Children are initially reminded to think about multiplication as repeated addition. With practice, they are able to complete these questions using multiplication and brackets. In the case of the Example 2, this would be: 2 ½ x 3 = (2 x 3) + (½ x 3) = 6 + 1 ½ = 7 ½
Recognise the percentage (%) symbol relates to the number of parts per 100, and rewrite percentages as a fraction with a denominator of 100. 23% = $\frac{23}{100}$ 23% of 300 = $\frac{23}{100}$ of 300	In MMMS, percentages are introduced as fractions with a denominator of 100 using Same Value, Different Appearance. e.g. 23% = $\frac{23}{100}$ They then use the ZZR to calculate the percentage required.

Z 300 Z 100 100 100 R 23 23 23 23% of 300 = 69	
Simplify fractions $\frac{4}{12} = ?$ ÷ 4 $\frac{4}{12} = \frac{1}{3}$ ÷ 4	Children use their knowledge of times tables to identify that both numerator (4) and denominator (12) are in the 4 times table. Dividing both numbers by 4 gives the equivalent, simplified fraction of $\frac{1}{3}$.
Use knowledge of equivalent fractions to find common denominators when adding and subtracting fractions $\frac{1}{2} + \frac{2}{3}$ Common multiple is 6, so make both denominators into 6. x 3 x 2 $\frac{1}{2} = \frac{3}{6} + \frac{2}{3} = \frac{4}{6} \rightarrow \frac{3}{6} + \frac{4}{6} = \frac{7}{6}$ x 3 x 2	This builds on equivalent fraction and multiple work. Children identify which times table contains both denominators. In this example, the lowest times table containing both 2 and 3 is the 6 times table, so this is what both fractions should be turned into. Once both denominators are the same it becomes a simple addition or subtraction problem.
Multiply simple pairs of proper fractions, writing answers in their simplest form $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$ SVDA $\frac{1}{2}$ of $\frac{1}{4} = \frac{1}{8}$	Children are taught to understand that 'x' and 'of' have the same meaning (SVDA) For example $\frac{1}{2}$ of 2 = 1 or SVDA $\frac{1}{2} \times 2 = 1$
Divide proper fractions by whole numbers $\frac{1}{3} \times 2 = \frac{1}{6}$ SVDA $\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$ or $\frac{1}{3}$ of $\frac{1}{2} = \frac{1}{6}$	Children are taught to understand that ÷ 2 is the same as x ½, or that ÷ 4 is the same as x ¼ This enables them to solve these problems in exactly the same way as the previous types of question.