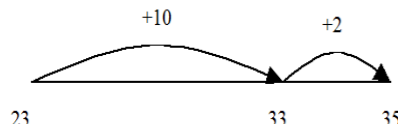
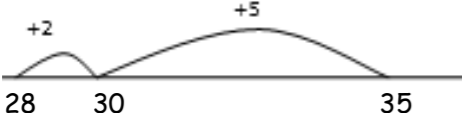
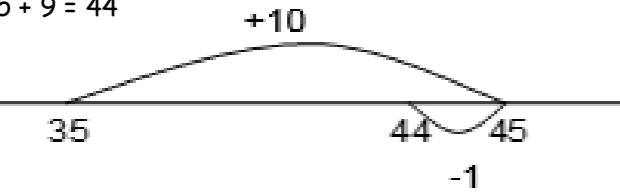
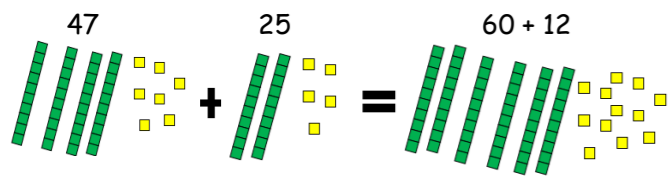
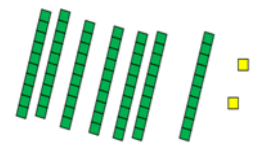
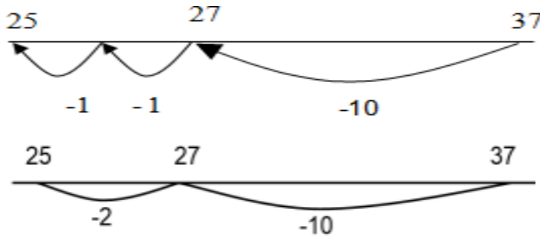
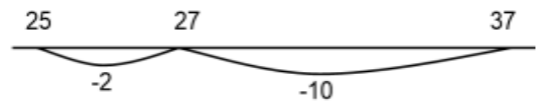
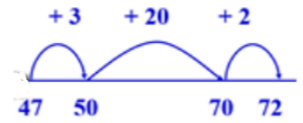
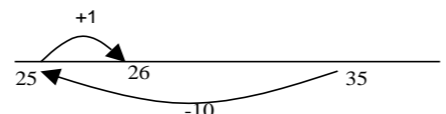
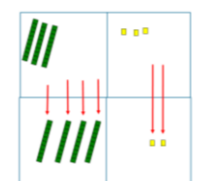


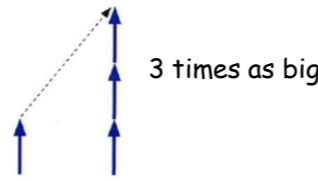
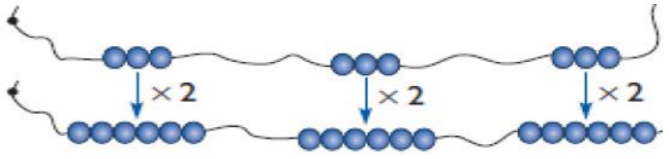
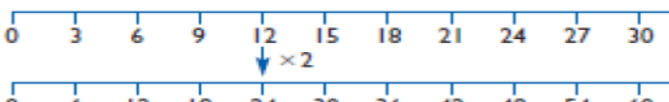
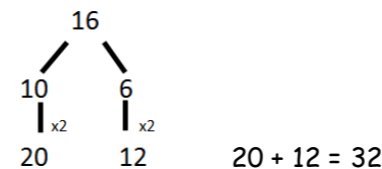


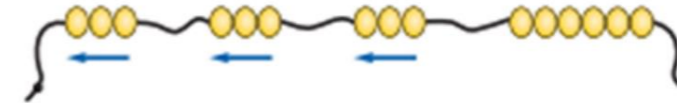



Year 2 Calculation Policy

Addition	Subtraction	Multiplication	Division																
<p><u>Solve problems including missing number problems</u> It is valuable to use concrete objects and pictorial representations, including those involving numbers, quantities and measures (also see Year 1).</p> <p>Missing number problems e.g. $14 + 5 = 10 + \square$ $32 + \square + \square = 100$ $35 = 1 + \square + 5$</p> <p><u>Count on in tens and ones</u> $23 + 12 = 23 + 10 + 2$ $= 33 + 2$ $= 35$</p>  <p><u>Partition and bridge through 10</u> Partition 7 to relate adding the 2 and then the 5. $7 + 28 = 35$</p>  <p><u>Add 9 or 11 by adding 10 and adjusting by 1</u> Add 9 by adding 10 and adjusting by 1 $35 + 9 = 44$</p>  <p><u>Partition into tens and ones and recombine</u> $47 + 25 = 72$</p>  <p>leading to exchange</p>  <p>$= 40 + 7 + 20 + 5 = 60 + 12 = 72$</p>	<p><u>- = signs and missing numbers</u> Continue using a range of equations as in Year 1 but with appropriate numbers. e.g. $52 - 8 = \square$; $\square - 20 = 25$; $22 = \square - 21$; $18 - \square - 3 = 11$</p> <p><u>Objects and visual representations</u> Use a range of representations (see Year 1).</p> <p><u>Partition into tens and ones</u> $37 - 12 = 25$</p>  <p>then</p>  <p><u>Use known number facts to count on</u> Count to next multiple of 10, then to required multiple of 10, then to end $72 - 47 = 25$</p>  <p><u>Subtract 9 or 11 by subtracting 10 and adjusting</u> $35 - 9 = 26$</p>  <p><u>Towards written methods</u> Addition and subtraction in expanded columns which can be represented with Base Ten. e.g. $75 - 42 = 33$</p>  <p>$\begin{array}{r} 70 \ 5 \\ -40 \ 2 \\ \hline 30 \ 3 \end{array}$</p> <p><u>Problems including difference/distance between/more than/less than such as with:</u> 'How many more red cubes are there than blue cubes?'</p>  <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Ella wants to buy one banana.</p>  <p>banana 35p</p> <p>She has 20p. How much more money does she need?</p> </div> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>There are 4 fewer boys than girls in Mr Hill's class. There are 18 girls. How many boys are there in Mr Hill's class?</p> </div>	<p><u>x = signs and missing numbers</u> Missing number problems e.g.</p> <table style="width: 100%;"> <tr> <td>$7 \times 2 = \square$</td> <td>$\square = 2 \times 7$</td> </tr> <tr> <td>$7 \times \square = 14$</td> <td>$14 = \square \times 7$</td> </tr> <tr> <td>$\square \times 2 = 14$</td> <td>$14 = 2 \times \square$</td> </tr> <tr> <td>$\square \times \Delta = 14$</td> <td>$14 = \square \times \Delta$</td> </tr> </table> <p>Develop understanding of multiplication using array and number lines (see Year 1). Include multiplications not in the 2, 5 or 10 times tables.</p> <p><u>Multiplication as scaling</u> Begin to develop understanding of multiplication as scaling (3 times bigger/taller)</p>   <p>$12 \times 2 = 24$</p>  <p><u>Doubling</u> Know and use up to 2×10 to calculate doubles of 2 digit numbers. Use jottings to move towards a written method</p> <p>double 16 = double 10 + double 6</p>  <p>$20 + 12 = 32$</p>	$7 \times 2 = \square$	$\square = 2 \times 7$	$7 \times \square = 14$	$14 = \square \times 7$	$\square \times 2 = 14$	$14 = 2 \times \square$	$\square \times \Delta = 14$	$14 = \square \times \Delta$	<p><u>÷ = signs and missing numbers</u> Missing number problems e.g.</p> <table style="width: 100%;"> <tr> <td>$6 \div 2 = \square$</td> <td>$\square = 6 \div 2$</td> </tr> <tr> <td>$6 \div \square = 3$</td> <td>$3 = 6 \div \square$</td> </tr> <tr> <td>$\square \div 2 = 3$</td> <td>$3 = \square \div 2$</td> </tr> <tr> <td>$\square \div \Delta = 3$</td> <td>$3 = \square \div \Delta$</td> </tr> </table> <p><u>Know and understand share and group</u> Continue to use grouping and sharing for division using practical apparatus, arrays and pictorial representations.</p>  <p>30 crayons shared equally between three pots. How many crayons in each pot? (Sharing) $30 \div 3 = 10$ crayons</p> <p>We have 30 crayons and put ten crayons in each pot. How many pots do we need? (Grouping) $30 \div 10 = 3$ pots</p>  <p>How many groups of 3? $15 \div 3 = 5$ How many groups of 5? $15 \div 5 = 3$ 15 shared between 3 people is...? $15 \div 3 = 5$ 15 shared between 5 people is...? $15 \div 5 = 3$</p> <p><u>Group using bead strings and then a number line</u> Group from zero and count in jumps of the divisor. To find 'how many groups of 3 are there in 15?'</p> <p>$15 \div 3 = 5$</p>  	$6 \div 2 = \square$	$\square = 6 \div 2$	$6 \div \square = 3$	$3 = 6 \div \square$	$\square \div 2 = 3$	$3 = \square \div 2$	$\square \div \Delta = 3$	$3 = \square \div \Delta$
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