

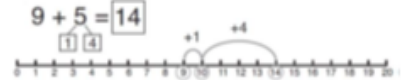
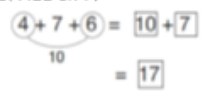
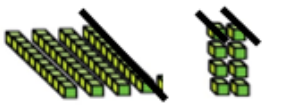
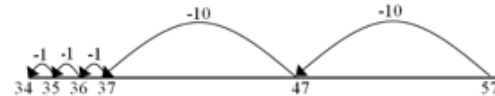
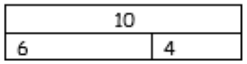

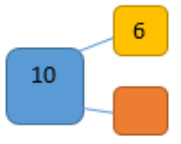
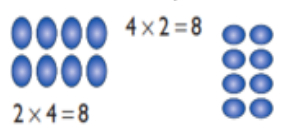

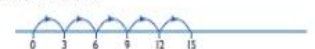





# Year 2 calculation guidance

<p align="center"><b>+ Addition +</b></p> <p>More Sum Altogether Add Plus Total</p>	<p align="center"><b>- Subtraction -</b></p> <p>minus Subtract take away less than difference between</p>	<p align="center"><b>x Multiplication x</b></p> <p>Multiply times lots of groups of multiple of product</p>	<p align="center"><b>÷ Division ÷</b></p> <p>Share equally group equally divide remainder factor</p>
<p><b>Methods from Year 1 to be continued in Year 2:</b> Use concrete objects to combine Counting on using a number line. See Year 1 calculation guidance.</p>  <p>Addition can be done in any order (commutative) 34 + 56 or 56 + 34</p> <p>Understand place value - can partition numbers &amp; recombine numbers</p>  <p>37 = 30 + 7    30 + 7 = 37</p> <p>Use partitioning to add numbers, first with concrete apparatus then as a possible mental method.</p> <p>Have a range of mental methods for calculating first with numbers to 20, then with numbers to 100 e.g. breaking numbers apart to use them flexibly, this may be with a bridging strategy (e.g. 7+5 could be thought of as 7+3+2 or 5+5+2), a compensating strategy (e.g. 7+9 could be thought of as 7+10 then -1) or by using a near double (e.g. 7+8 =14+1).</p>  <p>Learn to add three numbers 4 + 7 + 6 = 17 Put 4 and 6 together to make 10. Add on 7.</p>  <p>Use number bonds e.g. 4+6=10 to work out 40+60=100</p>	<p><b>Methods from Year 1 to be continued in Year 2:</b> Use concrete apparatus, part-part whole, number line or 100 square, then mentally count back on a number line. See Year 1 calculation guidance.</p> <p>Subtract using concrete objects such as Numicon, make the whole and take away the correct amount. Then progress to pictorial representations and mental methods.</p>  <p>48 - 12 =</p> <p>Start at the bigger number and count back the smaller number showing the jumps on the number line.</p>  <p>This can progress all the way to counting back using two 2 digit numbers.</p> <p>No. bonds to 100 (at least with multiples of 10). Understand the number line as a continuum. Understand that subtraction is the inverse of addition (Numicon is a particularly useful image) and bar model.</p>   	<p><b>Methods from Year 1 to be continued in Year 2:</b> Use knowledge of doubles to ten to support halving and doubling larger numbers. Repeated addition. Group objects and recognise number sequences e.g. 2s, 5s and 10s. See Year 1 calculation guidance.</p> <p>By the end of the year pupils should recall all multiplication facts for the 2, 5 and 10 times tables.</p> <p>Understand multiplication is about equal groups and use arrays to show this. Also be able to use these arrays to show and understand that multiplication is commutative.</p>  <p>4 x 2 = 8</p> <p>2 x 4 = 8</p> <p>Understand multiplication as scaling.</p>  <p><i>The giant is twice as big as a boy.</i></p> <p>Understand that multiplication and division are the inverse of each other.</p> <p>4x10=40 10x4=40 40÷4=10 40÷10=4</p>	<p><b>Methods from Year 1 to be continued in Year 2:</b> Understand division as sharing equally into groups. Share into groups using concrete apparatus then move to pictorial representations. See Year 1 calculation guidance.</p> <p>By the end of the year pupils should recall all division facts for the 2, 5 and 10 times tables.</p>  <p>How many 3s in 15!</p>  <p>15 ÷ 3 = 5</p>  <p>5 hops in 15. How big is each hop! 15 ÷ 5 = 3</p> <p>Link division to multiplication by creating an array and thinking about the number sentences that can be created.</p>  <p>Eg 15 ÷ 3 = 5    5 x 3 = 15 15 ÷ 5 = 3    3 x 5 = 15</p>

