

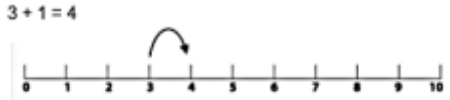
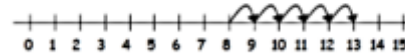


## Addition

Step 1	Examples	Step 2	Examples				
<p><b>Concrete addition</b></p> <p>This step requires the children to combine two groups of objects or images.</p> <p>Children should draw representations of objects to support their calculations.</p> <p>Count out 3, add two more. How many do we have now?</p> <p>Use of fingers is encouraged.</p> <p>The number sentence should be related to the objects/pictures/fingers whenever possible.</p>	<p>For example: <math>3 + 2 = 5</math></p>  <p>For example <math>5 + 1 = 6</math></p> 	<p><b>Numbered number line</b></p> <p>This step requires the children to first count one more and then several more on a numbered number line.</p>	 				
<p><b>Partitioning</b></p> <p>This step requires the children to partition the number, add these partitions and then the partial sums.</p> <p>This method can be used for 3 digit numbers and decimals.</p>	<p><b>Examples</b></p> <p><math>47+76= 123</math></p> <p><math>40+70=110</math> <math>7+6=13</math></p> <p><math>110+13=123</math></p> <p><math>45.3+56.8 = 102.1</math> <math>40+50=90</math> <math>5+6=11</math> <math>0.3+0.8=1.1</math> <math>90+11+1.1 = 102.1</math></p> <p><math>324 + 241 = 565</math></p> <p><math>300+200 = 500</math> <math>20+40 = 60</math> <math>4+1 = 5</math></p> <p><math>500+60+5 = 565</math></p>	<p><b>Step 4</b></p> <p><b>Extended Column</b></p> <p>This step requires the children to set the calculation out in a column (being careful to ensure correct place value). They are then required to add the lowest value digit, recording the answer below before moving to the other digits and adding the partial sums.</p> <p>This method can be used when adding 2, 3 or 4 digit numbers as well as decimals.</p>	<p><b>Examples</b></p> <table style="border-collapse: collapse;"> <tr> <td style="text-align: right; padding-right: 10px;"> <math display="block">\begin{array}{r} 83 \\ +42 \\ \hline 5 \\ 120 \\ \hline 125 \end{array}</math> </td> <td style="text-align: right; padding-right: 10px;"> <math display="block">\begin{array}{r} 14.28 \\ +17.56 \\ \hline 00.14 \\ 00.70 \\ 11.00 \\ 20.00 \\ \hline 31.84 \end{array}</math> </td> </tr> <tr> <td style="text-align: right; padding-right: 10px;"> <math display="block">\begin{array}{r} 367 \\ +185 \\ \hline 12 \\ 140 \\ 400 \\ \hline 552 \end{array}</math> </td> <td style="vertical-align: top;"> <p>For decimal numbers, zeros are used as place holders to ensure correct place value.</p> </td> </tr> </table>	$\begin{array}{r} 83 \\ +42 \\ \hline 5 \\ 120 \\ \hline 125 \end{array}$	$\begin{array}{r} 14.28 \\ +17.56 \\ \hline 00.14 \\ 00.70 \\ 11.00 \\ 20.00 \\ \hline 31.84 \end{array}$	$\begin{array}{r} 367 \\ +185 \\ \hline 12 \\ 140 \\ 400 \\ \hline 552 \end{array}$	<p>For decimal numbers, zeros are used as place holders to ensure correct place value.</p>
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<p><b>Step 5</b></p> <p><b>Short method</b></p> <p>This method requires the children to set the calculation out in a column (being careful to ensure correct place value).</p> <p>When adding, the children are required to carry using correct language such as 'carry ten' or 'carry one hundred' and the carry should be recorded below the line.</p> <p>This method should be extended to addition of 3, 4 and 5-digit numbers as well as decimals.</p> <p>The method can also be extended to adding more than two number.</p>	<table style="border-collapse: collapse;"> <tr> <td style="text-align: right; padding-right: 10px;"> <math display="block">\begin{array}{r} 367 \\ +185 \\ \hline 552 \\ \hline 11 \end{array}</math> </td> <td style="text-align: right; padding-right: 10px;"> <math display="block">\begin{array}{r} 3587 \\ + 675 \\ \hline 4262 \\ \hline 111 \end{array}</math> </td> </tr> <tr> <td style="text-align: right; padding-right: 10px;"> <math display="block">\begin{array}{r} 72.8 \\ + 54.6 \\ \hline 127.4 \\ \hline 11 \end{array}</math> </td> <td style="text-align: right; padding-right: 10px;"> <math display="block">\begin{array}{r} 13.860 \\ + 9.481 \\ \hline 23.341 \\ \hline 111 \end{array}</math> </td> </tr> </table>	$\begin{array}{r} 367 \\ +185 \\ \hline 552 \\ \hline 11 \end{array}$	$\begin{array}{r} 3587 \\ + 675 \\ \hline 4262 \\ \hline 111 \end{array}$	$\begin{array}{r} 72.8 \\ + 54.6 \\ \hline 127.4 \\ \hline 11 \end{array}$	$\begin{array}{r} 13.860 \\ + 9.481 \\ \hline 23.341 \\ \hline 111 \end{array}$		
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