



Addition and Subtraction

Knowledge Organiser

Key Vocabulary	Addition and Subtraction Methods																																			
add	<p>3 digit and 1 digit numbers</p> <p>Not crossing 10s</p> $268 - 4 = 264$	<p>3-digit and 2-digit numbers</p> <p>Add and subtract tens</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <th style="background-color: #f4a460;">Hundred</th> <th style="background-color: #f4a460;">Ten</th> <th style="background-color: #f4a460;">Ones</th> </tr> <tr> <td>●●●●</td> <td>●●●●●</td> <td>●</td> </tr> </table> <p>$451 + 3 \text{ tens} = 481$ ($5 + 3 = 8$) $451 - 4 \text{ tens} = 411$ ($5 - 4 = 1$)</p> <p>Crossing 10s (Exchanging)</p> $258 + 80 = 338$	Hundred	Ten	Ones	●●●●	●●●●●	●	<p>3-digit numbers</p> <p>Not crossing</p> $679 - 351 = 328$																											
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plus				<p>Crossing 10s (Exchanging)</p> $316 + 8 = 324$	<p>Crossing 10 and 100</p> <table style="width: 100%; text-align: center;"> <tr> <td>$\begin{array}{r} 368 \\ +73 \\ \hline 441 \end{array}$</td> <td>$\begin{array}{r} 368 \\ +73 \\ \hline 441 \end{array}$</td> <td>$\begin{array}{r} 368 \\ +73 \\ \hline 441 \end{array}$</td> </tr> <tr> <td>$\begin{array}{r} 441 \\ -73 \\ \hline 368 \end{array}$</td> <td>$\begin{array}{r} 441 \\ -73 \\ \hline 368 \end{array}$</td> <td>$\begin{array}{r} 441 \\ -73 \\ \hline 368 \end{array}$</td> </tr> </table>	$\begin{array}{r} 368 \\ +73 \\ \hline 441 \end{array}$	$\begin{array}{r} 368 \\ +73 \\ \hline 441 \end{array}$	$\begin{array}{r} 368 \\ +73 \\ \hline 441 \end{array}$		$\begin{array}{r} 441 \\ -73 \\ \hline 368 \end{array}$	$\begin{array}{r} 441 \\ -73 \\ \hline 368 \end{array}$	$\begin{array}{r} 441 \\ -73 \\ \hline 368 \end{array}$	<p>Add and Subtract 100s</p> $284 + 300 = 584$																							
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sum	<p>Crossing 10s (Exchanging)</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <th style="background-color: #f4a460;">324</th> <th style="background-color: #f4a460;">20</th> <th style="background-color: #f4a460;">4</th> </tr> <tr> <td>300</td> <td>20</td> <td>4</td> </tr> <tr> <th style="background-color: #f4a460;">300</th> <th style="background-color: #f4a460;">10</th> <th style="background-color: #f4a460;">14</th> </tr> <tr> <td>300</td> <td>10</td> <td>14</td> </tr> </table> <p>$316 + 8 = 324$</p> <table border="1" style="width: 100%; text-align: center;"> <tr><td>316</td><td>8</td></tr> <tr><td></td><td></td></tr> </table> <p>$324 - 8 = 316$</p>	324				20	4	300	20	4	300	10		14	300	10	14	316	8			<table border="1" style="width: 100%; text-align: center;"> <tr> <th style="background-color: #f4a460;">Hundred</th> <th style="background-color: #f4a460;">Ten</th> <th style="background-color: #f4a460;">Ones</th> </tr> <tr> <td>●●●●●</td> <td>●●●●●</td> <td>●</td> </tr> <tr> <td>●●●●●</td> <td>●●●●●</td> <td>●</td> </tr> </table> <p>$284 + 300 = 584$</p>	Hundred	Ten	Ones	●●●●●	●●●●●	●	●●●●●	●●●●●	●					
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Estimate	Check Answers																				
<p>Estimate by dividing the hundred into 250 and 225.</p> <p>Estimate 10s (330, 340) between 325 and 350.</p>  <p>Estimate $167 - 89$</p> <p>Use near numbers $170 - 90 = 80$</p> <p>Near numbers:</p> <table style="width: 100%; text-align: center;"> <tr> <td style="background-color: #00a68a; color: white; padding: 5px;">413</td> <td style="background-color: #00a68a; color: white; padding: 5px;">279</td> <td style="background-color: #00a68a; color: white; padding: 5px;">521</td> <td style="background-color: #00a68a; color: white; padding: 5px;">782</td> </tr> <tr> <td>↓</td> <td>↓</td> <td>↓</td> <td>↓</td> </tr> <tr> <td style="background-color: #90ee90; padding: 5px;">400</td> <td style="background-color: #90ee90; padding: 5px;">300</td> <td style="background-color: #90ee90; padding: 5px;">500</td> <td style="background-color: #90ee90; padding: 5px;">800</td> </tr> </table>	413	279	521	782	↓	↓	↓	↓	400	300	500	800	<table border="1" style="width: 100%; text-align: center;"> <tr> <td colspan="2" style="background-color: #00a68a; color: white; padding: 5px;">347</td> </tr> <tr> <td style="background-color: #90ee90; padding: 5px;">273</td> <td style="background-color: #00a68a; color: white; padding: 5px;">74</td> </tr> </table> <p>$347 - 74 = 273$ can be checked using</p> <p>$273 + 74 = 347$</p> <p>This part whole shows the inverse calculations using these three numbers.</p> <div style="text-align: center;">  </div> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>$154 + 269 = 423$</td> <td>$269 + 154 = 423$</td> </tr> <tr> <td>$423 - 154 = 269$</td> <td>$423 - 269 = 154$</td> </tr> </table>	347		273	74	$154 + 269 = 423$	$269 + 154 = 423$	$423 - 154 = 269$	$423 - 269 = 154$
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