



Key Vocabulary
add
total
plus
sum
more
altogether
difference
subtract
less
minus
take away
mentally
orally
column addition
column subtraction
exchange
estimate
inverse
solve problems
number facts

Addition and Subtraction Methods

Add 4-digit numbers

No exchange

$$\begin{array}{r} 5162 \\ +3427 \\ \hline 8589 \end{array}$$

Starting with the ones, add each column in turn.

One exchange

$$\begin{array}{r} 5162 \\ +3497 \\ \hline 8659 \\ 1 \end{array}$$

Starting with the ones, add each column in turn. When adding 6 tens + 9 tens = 15 tens - 1 hundred + 5 tens
Place 1 hundred under the hundreds answer and 5 tens in the answer.

Multiple exchanges

$$\begin{array}{r} 5864 \\ +3497 \\ \hline 9361 \\ 111 \end{array}$$

Starting with the ones, add each column in turn. Exchange tens, hundreds and/ or thousands as required.

Subtract 4-digit numbers

No exchange

$$\begin{array}{r} 5789 \\ -3421 \\ \hline 2368 \end{array}$$

Starting with the ones, subtract each column in turn.

One exchange

$$\begin{array}{r} 61 \\ 5749 \\ -3471 \\ \hline 2278 \end{array}$$

Starting with the ones, subtract each column in turn. When subtracting 4 tens - 7 tens, exchange 1 hundred to make:
14 tens - 7 tens = 7 tens

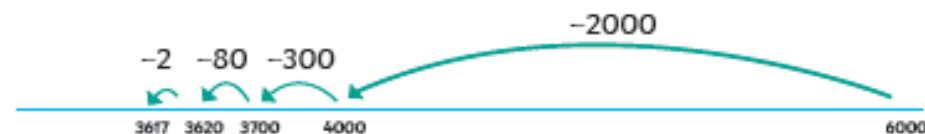
Multiple exchanges

$$\begin{array}{r} 6131 \\ 5742 \\ -3476 \\ \hline 2266 \end{array}$$

Starting with the ones, subtract each column in turn. Exchange tens, hundreds and/ or thousands as required.

Efficient subtraction

Calculate $6000 - 3617 = 2383$





Add and Subtract 1s, 10s, 100s, 1000s	Round to Estimate									
<p>Here is the number 3124</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">1000</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">100</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">10</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">1</div> </div> <div style="display: flex; flex-wrap: wrap; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">1000</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">1000</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">10</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">1</div> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px;">1</div> </div> <p>Add 2 thousands - 5124 Add 5 hundreds - 5624 Subtract 2 tens - 5604 Add 5 ones - 5609</p> <p>Here is the number 6708</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 25%;">Thousands</th> <th style="width: 25%;">Hundreds</th> <th style="width: 25%;">Tens</th> <th style="width: 25%;">Ones</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">7</td> <td style="text-align: center;">0</td> <td style="text-align: center;">8</td> </tr> </tbody> </table> <p>Add 3 thousands - 9708 Subtract 4 hundreds - 9308 Add 5 tens - 9358 Subtract 7 ones - 9351</p> <p>Crossing ones, tens or hundreds</p> <p>5392 + 4 tens = 5432 crossing tens 5126 - 600 = 4526 crossing hundreds</p> <p>When crossing ones, tens or hundreds, more than one digit will change.</p> <p style="font-size: small; margin-top: 5px;">visit twinkl.com</p>	Thousands	Hundreds	Tens	Ones	6	7	0	8	<p>1635 + 386 = 2021 Round to the nearest ten</p> <p>1640 + 390 = 2030 Round to the nearest hundred</p> <p>1600 + 400 = 2000</p> <p>Both give a reasonable estimate, but rounding the nearest ten is more accurate.</p>	<p>9362 - 5729 = 3622 Round to the nearest hundred</p> <p>9400 - 5700 = 3700 Round to the nearest thousand</p> <p>9000 - 6000 = 3000</p> <p>Rounding to the nearest hundred is much more accurate in this case.</p>
Thousands	Hundreds	Tens	Ones							
6	7	0	8							
Checking Strategies										
<p>Using Inverse</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr style="background-color: #add8e6;"> <td style="text-align: center;">3476</td> <td style="width: 20px;"></td> </tr> <tr style="background-color: #c0c0e0;"> <td style="text-align: center;">2732</td> <td style="background-color: #90ee90; text-align: center;">744</td> </tr> </table> <p>3476 - 744 = 2732 can be checked using 2732 + 744 = 3476</p> <p>This part whole shows the inverse calculations using these three numbers.</p> <div style="text-align: center; margin-top: 10px;"> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tbody> <tr> <td style="width: 50%; text-align: center;">1549 + 2688 = 4237</td> <td style="width: 50%; text-align: center;">2688 + 1549 = 4237</td> </tr> <tr> <td style="text-align: center;">4237 - 1549 = 2688</td> <td style="text-align: center;">4237 - 2688 = 1549</td> </tr> </tbody> </table>	3476		2732	744	1549 + 2688 = 4237	2688 + 1549 = 4237	4237 - 1549 = 2688	4237 - 2688 = 1549	<p>Adding in a different order</p> <p>420 + 372 + 280 =</p> <p>Change to</p> <p>420 + 280 + 372 =</p> <p>As 420 + 280 = 700 (because 42 + 28 = 70)</p> <p>420 + 280 + 372 = 700 + 372 = 1072</p>	
3476										
2732	744									
1549 + 2688 = 4237	2688 + 1549 = 4237									
4237 - 1549 = 2688	4237 - 2688 = 1549									

Estimate 2549 - 781. What near numbers could you use? Draw it as a part whole model.
How can you check your answer to 2549 - 781 using the inverse? What is the same and what is different about these calculations?