

Question	Answer
1	a) 3,425 b) 3,428 c) 3,445 d) 3,225 e) 8,425
2	a) 5,578 b) 5,398 c) 7,378 d) 5,372 e) 5,318 f) 2,378 g) 5,678 h) 5,078
3	a) $6,058 + 1 = 6,059$ $6,058 + 2 = 6,060$ $6,058 + 3 = 6,061$ $6,058 + 4 = 6,062$ $5 + 6,058 = 6,063$ b) $6,058 + 20 = 6,078$ $6,058 + 30 = 6,088$ $6,058 + 40 = 6,098$ $6,058 + 50 = 6,108$ $60 + 6,058 = 6,118$
4	2,450 3,928 4,180 5,905 972 The 1,000s change when there is a 9 in the hundreds column.
5	a) £1,842 b) £2,442 c) £2,382
6	No, Eva is incorrect. When she has taken 10 away five times, her number will be 2,062. The next time that she takes 10 away, her number will be 1,962, so the thousands will also change.
7	a) $6,951 - 30 = 6,921$ $6,951 - 70 = 6,881$ b) $6,421 - 700 = 5,721$ $6,421 + 700 = 7,121$ c) $1,706 + 60 = 1,766$ $1,706 - 800 = 906$ d) $3,500 - 800 = 2,700$ $3,500 - 70 = 3,430$
8	a) 5,212 Children need to develop the ability to do this type of calculation mentally. b) $1,780 + 2,200 = 3,980$ $3,084 + 720 = 3,804$ $591 + 2,820 = 3,411$

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3	399 km																																																
4	<p>a) $711 + 140 = 851$</p> <p>b) $414 + 203 = 617$</p> <p>c) $502 + 384 = 886$</p>																																																
5	<p>a) 939</p> <p>b) 289</p> <p>c) £896</p>																																																

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6	<p>a) school A School A has fewer boys than school A, so must have more girls.</p> <p>b) 129</p>																																																																								
7	<p>multiple possible answers, e.g.:</p> <table><tr><td></td><td></td><td>H</td><td>T</td><td>O</td><td></td></tr><tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td></td></tr><tr><td></td><td>+</td><td>7</td><td>6</td><td>5</td><td></td></tr><tr><td></td><td></td><td>8</td><td>8</td><td>8</td><td></td></tr></table> <table><tr><td></td><td></td><td>H</td><td>T</td><td>O</td><td></td></tr><tr><td></td><td></td><td>3</td><td>7</td><td>2</td><td></td></tr><tr><td></td><td>+</td><td>5</td><td>1</td><td>6</td><td></td></tr><tr><td></td><td></td><td>8</td><td>8</td><td>8</td><td></td></tr></table> <table><tr><td></td><td></td><td>H</td><td>T</td><td>O</td><td></td></tr><tr><td></td><td></td><td>2</td><td>1</td><td>5</td><td></td></tr><tr><td></td><td>+</td><td>6</td><td>7</td><td>3</td><td></td></tr><tr><td></td><td></td><td>8</td><td>8</td><td>8</td><td></td></tr></table>			H	T	O				1	2	3			+	7	6	5				8	8	8				H	T	O				3	7	2			+	5	1	6				8	8	8				H	T	O				2	1	5			+	6	7	3				8	8	8	
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Y4 – Autumn – Block 2 – Step 2 – Add two 4-digit numbers - no exchange Answers

Question	Answer																																			
1	836																																			
2	a) 8,336 b) 3,336 c) The hundreds, tens and ones digits are the same. Only the thousands digit is different.																																			
3	a) 6,727 b) 7,869 c) 1,279 d) 3,567																																			
4	No. Alex has not lined up the digits correctly. 5,827																																			
5	2,552 km																																			
6	2,876																																			
7	<table><tr><td></td><td></td><td>Th</td><td>H</td><td>T</td><td>O</td><td></td></tr><tr><td></td><td></td><td>3</td><td>3</td><td>2</td><td>0</td><td></td></tr><tr><td></td><td>+</td><td>5</td><td>4</td><td>7</td><td>6</td><td></td></tr><tr><td></td><td></td><td>8</td><td>7</td><td>9</td><td>6</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>			Th	H	T	O				3	3	2	0			+	5	4	7	6				8	7	9	6								
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8	7,557 One number is the reverse of the other, so the answer is the same forwards and backwards.																																			

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3	<p>a) 336 + 276</p> <p>b) 612</p> <p>c) 2</p>																																																																																					
4	<p>a) 658</p> <p>b) 751 m</p> <p>c) 826</p> <p>d) 820</p>																																																																																					
5	<p>a)</p> <table><tr><td>317 + 203</td><td><input checked="" type="checkbox"/></td><td>192 + 784</td><td><input type="checkbox"/></td><td>390 + 177</td><td><input type="checkbox"/></td></tr><tr><td>455 + 165</td><td><input checked="" type="checkbox"/></td><td>386 + 184</td><td><input checked="" type="checkbox"/></td><td>319 + 501</td><td><input checked="" type="checkbox"/></td></tr></table> <p>b) No, we only need to look at the ones column.</p> <p>c) The answer to 175 + 212 ends with a 7 The answer to 609 + 175 ends with a 4 The answer to 334 + 178 ends with a 2 e.g. The answer to 716 + 127 ends with a 3</p>	317 + 203	<input checked="" type="checkbox"/>	192 + 784	<input type="checkbox"/>	390 + 177	<input type="checkbox"/>	455 + 165	<input checked="" type="checkbox"/>	386 + 184	<input checked="" type="checkbox"/>	319 + 501	<input checked="" type="checkbox"/>																																																																									
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7	<p>a) 421</p> <p>b) 569</p>																																																																																																				
8	<p>multiple possible answers, e.g.:</p> <p>1 exchange: 123 + 119, 357 + 261</p> <p>2 exchanges: 444 + 278, 576 + 176</p> <p>Children can check each other's additions.</p>																																																																																																				

Reasoning 1

Pupils

Modelled DAB Reasoning Response

D – $8,153 + 4$ hundreds is easier.

A – You do not have to exchange at all when solving this calculation.

B – Calculations should be shown with use of stem sentences to explain working
e.g. 1 hundred plus 4 hundreds is 500 in the second calculation. In the first calculation $70 + 50 = 120$ therefore we must exchange 10 tens for 1 hundred and are left with 2 tens. This requires exchanging.

Reasoning 2

Modelled DAB Reasoning Response

D – Sometimes true.

A – Sometimes when adding tens to a number, the hundreds column will change, sometimes it won't.

B – Children should give one example which requires exchanging and one that doesn't.

Problem Solving 1

She adds three counters – one in each column except the tens.

Hundreds is double ones – 4

Digit sum is a multiple of 6 – 18

No consecutive numbers – 6,443

ADD TWO 4-DIGIT NUMBERS NO EXCHANGE

Reasoning 1

Modelled DAB Reasoning Responses

D – Jane has made a mistake

A – She has put 1,000 in the 100s column so the calculation is wrong

B –

1,000s	100s	10s	1s
1000	10 10 100 10 100	10 10 10 10	1 1 1
1000		10 10 10	1 1

The calculation = 2,565

Reasoning 2

Modelled DAB Reasoning Response

D – Ranjit is wrong

A – You cannot subtract all the known numbers – some need to be added together.

B – For example - The ones digits can be subtracted but the tens digits must be added.

Reasoning 3

Pupils should identify similarities and differences – for example;

Both sets of numbers have the same number of 3s and 0s.

They are different calculations

They both have the same answer etc.

Problem Solving 1

	2	5	3	4
+	2	3	5	4
	4	8	8	8

