1) Complete these addition calculations. You may want to use place value counters to help you.

a)

	3	7	8	5
+	5	1	3	4

b)

	6	0	5	4
+	5	6	7	1

c)

	3	4	3	2	3
+		4	7	6	8

d) 53 264 + 9565

e) 6807 + 32 653

2) Five children have been playing a times tables game. Here are their scores:

Lottie	Sam	Izzy	Abdul	Ffion
32 357	30 541	34 057	31 647	33 587

a) Which two children have a combined score of exactly 62 188?

b) Which two children have a combined score of exactly 65 944?

1) Ravi has been practising his column method but he has made some mistakes. For each sum, identify the mistakes and explain his errors. Then carry out the sum yourself to find the correct total.

a)

	3	2	5	6	1
+		7	6	3	5
	3	9	1	9	6

b)

	3	4	5	8	
+	5	2	6	7	1
	5	7	2	5	1

c)

		5	2	3	1
+		2	7	8	5
	7	1	0	1	6
			1		

2) Amy is playing a maths game. She scores 1200 in the first round, 4800 in the next and 11 000 in the final round. Would you use column addition to find her total score? Use the numbers in the question to explain your answer.

1) Can you identify the missing digits in these two calculations?

	4	2	☐	6	☐
+	☐	9	5	☐	2
	8	1	6	4	9

	☐	☐	3	1	8
+	1	4	☐	7	☐
	9	0	2	☐	6

2) Each letter represents a different number between 0 and 9. Can you work out what the letters represent to make the addition calculation work? How many different solutions can you find?

	C	L	U	E
+	M	I	L	E
	P	O	N	Y

L

ANSWERS

1) a) 8919

   b) 11 725

   c) 39 091

   d) 62 829

   e) 39 460

2) a) Abdul and Sam

   b) Lottie and Ffion

1)

	3	2	5	6	1
+		7	6	3	5
	③	⑨	1	9	6

	3	2	5	6	1
+		7	6	3	5
	4	0	1	9	6
		1	1		

500 + 600 = 1100. Ravi should have regrouped 10 of the hundreds as 1 thousand, recording the regrouped digit under the thousands column. 2000 + 7000 + 1000 = 10 000, thus giving a final total of 40 196.

	(3	4	5	8)	
+	5	2	6	7	1
	5	7	2	5	1

		3	4	5	8
+	5	2	6	7	1
	5	6	1	2	9
		1	1		

Ravi has not lined the digits up in the correct place value columns. The value of the 3 is three thousands but he has put it in the ten thousands column.

		5	2	3	1
+		2	7	8	5
	7	(1	0)	1	6
		1			

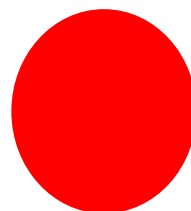|					
		5	2	3	1
+		2	7	8	5
	8	0	1	6	
		1	1		

Ravi has started correctly but, when he got to 700 + 200 + 100, he has written this in as 1000. He should have recorded the regrouped digit under the thousands column to add this on to 5000 + 2000.

2) Children should be encouraged to look at the numbers they are calculating with and use the most efficient method. They should understand that they should always look at the numbers first to decide whether you can add them mentally. In this case, column addition would not be the most efficient method. A mental method, with jottings if needed, would be the most efficient method. You could use your number bond knowledge to add 1200 to 4800, giving a total of 6 000, and then add 11 000 to give a final total of 17 000.

1)

	4	2	0	6	7
+	3	9	5	8	2
	8	1	6	4	9
		1		1	

	7	5	3	1	8
+	1	4	9	7	8
	9	0	2	9	6
		1	1		1

2) One possible solution is 6125 + 3715 = 9840. Accept any other solutions which work.