Using inverse operations

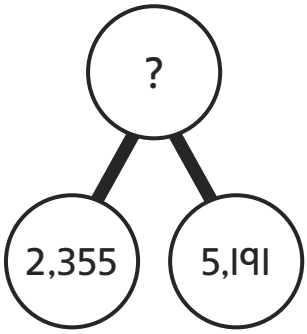
Discover

1 **a)** What addition calculations can Reena and Lee do to check their answers? Who is correct?

b) What mistake has the other person made?

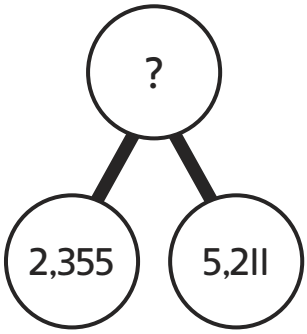
Share

a) Reena and Lee can do the following addition calculations to check their answers.



	Th	H	T	O
	2	3	5	5
+	5	1	9	1
	7	5	4	6
			1	

Reena is correct as 2,355 + 5,191 = 7,546.



	Th	H	T	O
	2	3	5	5
+	5	2	1	1
	7	5	6	6

Lee is incorrect as 2,355 + 5,211 = 7,566 and not 7,546.

b) Lee should have exchanged 1 hundred for 10 tens so that he could do the subtraction.

Lee's method

	Th	H	T	O
	7	5	4	6
–	2	3	5	5
	5	2	1	1

Correct method

	Th	H	T	O
	7	$^{4}\not{5}$	$^{1}4$	6
–	2	3	5	5
	5	1	9	1

Think together

1 Reena and Lee are now working out 23,405 + 7,892.

Reena

	TTh	Th	H	T	O
	2	3	4	0	5
+		7	8	9	2
	2	0	2	9	7

Lee

	TTh	Th	H	T	O
	2	3	4	0	5
+		7	8	9	2
	3	1	2	9	7
		1	1		

a) Who has the correct answer? How can you check the answer is correct?

b) What mistake has the other person made?

2 Reena and Lee are now working out 46,795 – 3,548.

Reena

	TTh	Th	H	T	O
	4	6	7	9	5
–	3	5	4	8	
	1	1	3	1	5

Lee

	TTh	Th	H	T	O
	4	6	7	9	5
–		3	5	4	8
	4	3	2	5	3

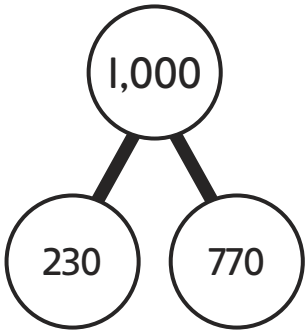
Use addition to check Reena and Lee's answers.

What mistakes have been made?

I wonder if I could use an estimate instead to check if Reena's answer is correct.

CHALLENGE

3 **a)** Write the fact family for this part-whole model.



b) What two subtractions would help you to check this calculation?

3,270 + 7,730 = 10,000

c) Work out the answers to your two subtractions to check that the calculation is correct.

To subtract a number from 10,000 I might subtract 1 from each number first.

A part-whole model will help me work out the fact family.

→ Practice book 5A p79