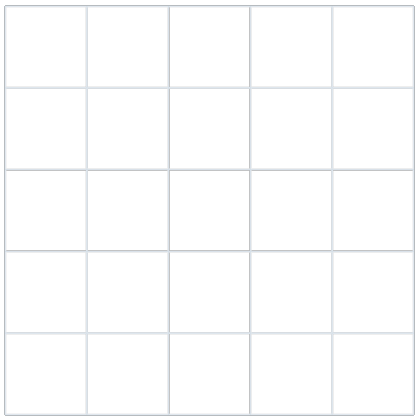
Year 4 - Column Addition — Lesson Guide

Step 1

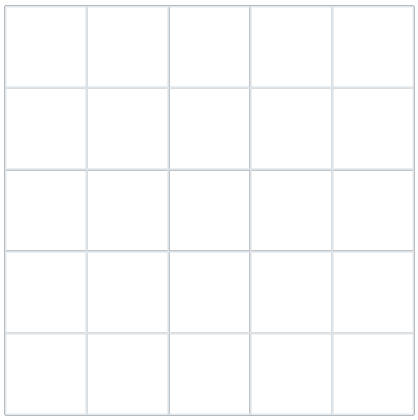
2,346 + 578 = ☐



First, we circle the plus sign so we know to add the two parts and find their sum.

Step 2

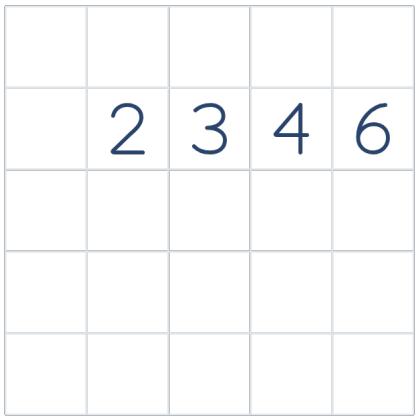
2,346 + 578 = ☐



First, check whether a mental method would be quicker. Look at the ones. 6 ones and 8 ones make 14 ones. We can exchange 10 ones for 1 ten. Column addition keeps the place values lined up.

Step 3

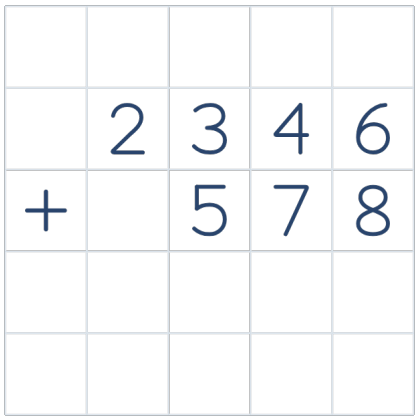
2,346 + 578 = ☐



The first digit of 2,346, 2, is in the thousands column, so we start there. Now, we write 2,346 in the correct columns, with one digit in each box.

Step 4

2,346 + 578 = ☐

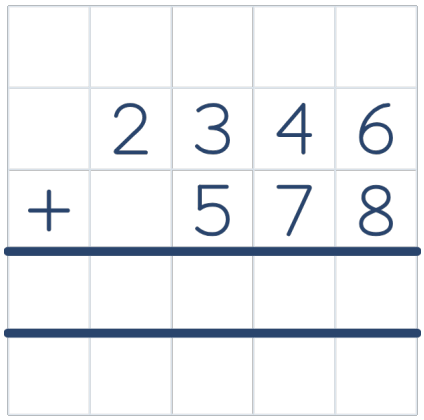


Remember: There must always be a digit in the ones column, even if it is a 0.

Then, we write a plus sign on the left of the calculation. 578 has three digits, so we start with 5 in the hundreds column. We write 578 in the correct columns, with one digit in each box.

Step 5

2,346 + 578 = ☐



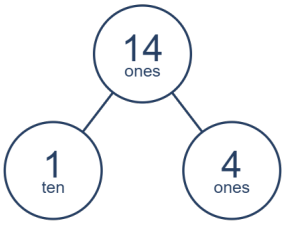
Draw a line under 578. Leave one row for the sum, then draw the second line below that row. Write exchanges below the second line.

Step 6

2,346 + 578 = ☐

	2	3	4	6
+		5	7	8

First, we add the ones, the smallest place-value column. 6 ones + 8 ones = 14 ones. As we can only write one digit per box, we partition 14 ones into 1 ten and 4 ones.



Step 7

2,346 + 578 = ☐

	2	3	4	6
+		5	7	8
				4
			1	

We write the 1 ten in the tens column underneath the answer, ready for the next step. Then we write the remaining 4 ones in the ones answer box.

Step 8

2,346 + 578 = ☐

	2	3	4	6
+		5	7	8
				4
			1	

Remember: Check both places. Keep the small 1 below the tens column and the 4 in the ones answer square.

The small 1 below the tens column stands for 1 ten. The 4 in the ones answer square stands for 4 ones. Together, they make 14 ones.

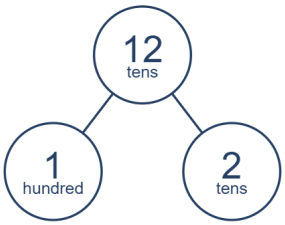
Step 9

2,346 + 578 = ☐

	2	3	4	6
+		5	7	8
				4
			1	

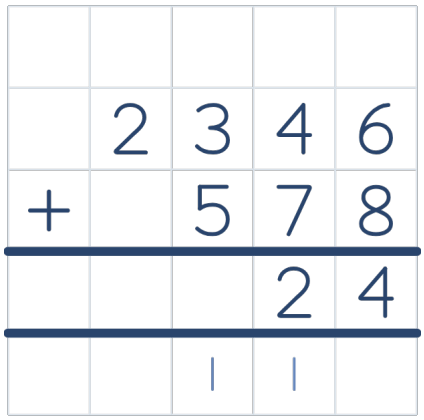
Remember: Look below the column you are working on. Add the exchanged amount written there.

Next, we add the tens. 4 tens + 7 tens = 11 tens. Add the 1 exchanged ten shown by the small 1 below the tens column. 11 tens + 1 exchanged ten = 12 tens. As we can only write one digit per box, we partition 12 tens into 1 hundred and 2 tens.



Step 10

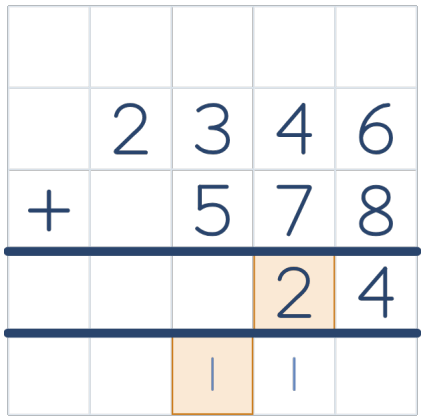
2,346 + 578 = ☐



We write the 1 hundred in the hundreds column underneath the answer, ready for the next step. Then we write the remaining 2 tens in the tens answer box.

Step 11

2,346 + 578 = ☐

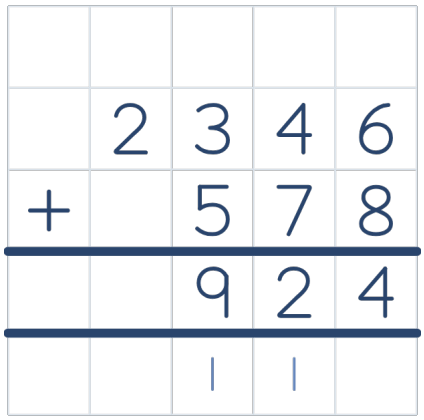


Remember: Check both places. Keep the small 1 below the hundreds column and the 2 in the tens answer square.

The small 1 below the hundreds column stands for 1 hundred. The 2 in the tens answer square stands for 2 tens. Together, they make 12 tens.

Step 12

2,346 + 578 = ☐

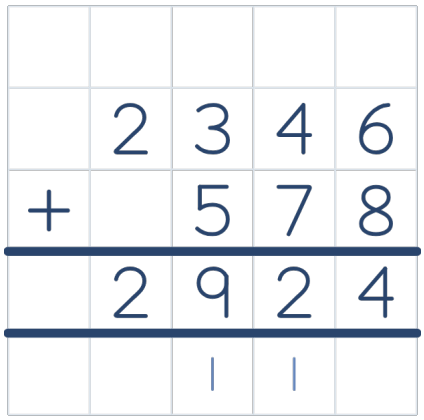


Remember: Look below the column you are working on. Add the exchanged amount written there.

Next, we add the hundreds. 3 hundreds + 5 hundreds = 8 hundreds. Add the 1 exchanged hundred shown by the small 1 below the hundreds column. 8 hundreds + 1 exchanged hundred = 9 hundreds. We write 9 in the hundreds column. No exchange is needed this time.

Step 13

2,346 + 578 = ☐

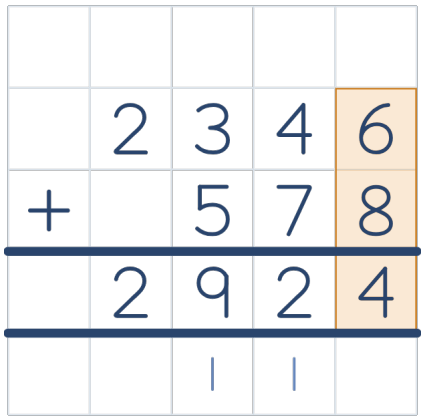


Remember: Check whether there is an exchange to add from the previous column. Include it before writing this answer.

Look at the thousands column. The lower square is empty because 578 has no thousands. Use 0 thousands for 578. 2 thousands + 0 thousands = 2 thousands. We write 2 in the thousands column. No exchange is needed this time.

Step 14

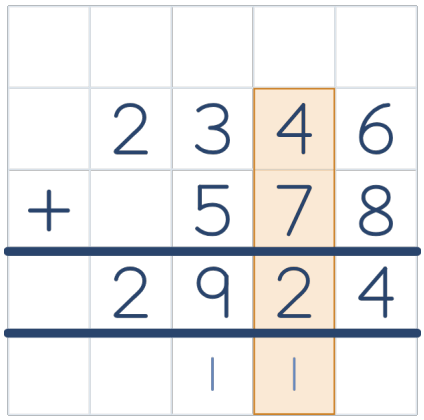
2,346 + 578 = ☐



Our sum is 2,924. Before we copy our answer into the answer box, let's check each column, including the exchanges. First, we check the ones: 6 + 8 = 14. We have correctly recorded 1 ten underneath the answer and 4 ones in the ones answer box.

Step 15

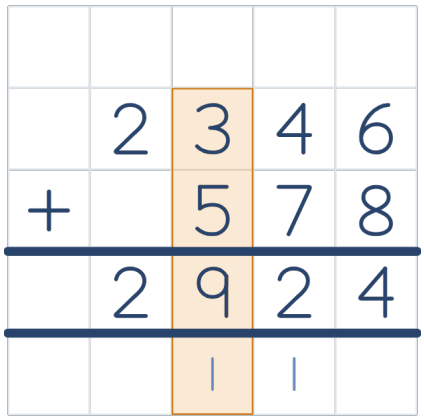
2,346 + 578 = ☐



Next, we check the tens, including the exchanged ten: 4 + 7 + 1 = 12. We have correctly recorded 1 hundred underneath the answer and 2 tens in the tens answer box.

Step 16

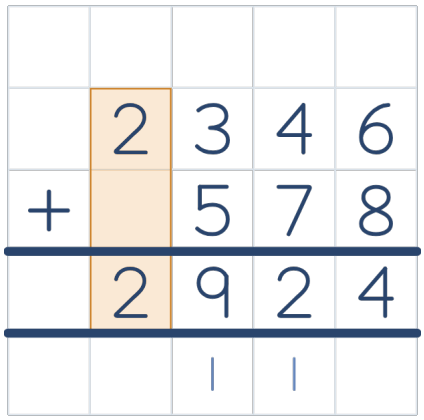
2,346 + 578 = ☐



Then, we check the hundreds, including the exchanged hundred: 3 + 5 + 1 = 9. We have correctly included the exchanged hundred and written 9 in the hundreds answer box.

Step 17

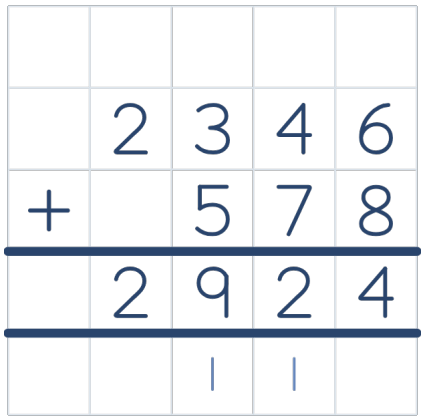
2,346 + 578 = ☐



Finally, we check the thousands: 2 + 0 = 2. We have correctly written 2 in the thousands answer box.

Step 18

2,346 + 578 = **2924**



The sum is 2924. Copy 2924 into the answer box. Make sure you copy the answer correctly.