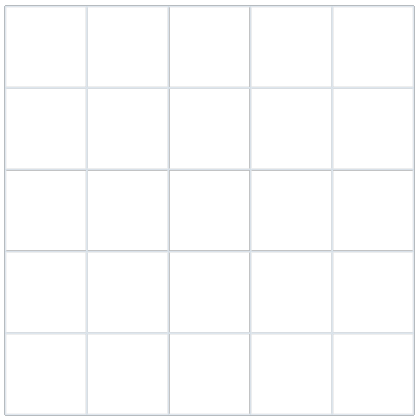
Year 5 - Column Multiplication — Lesson Guide

Step 1

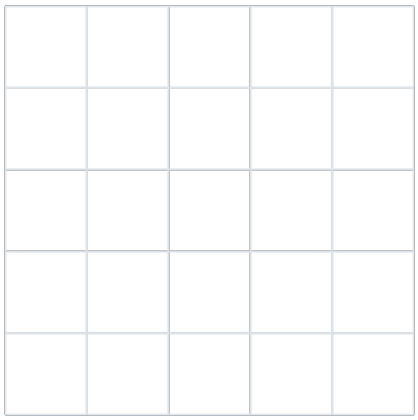
1,142 × 2 = ☐



First, we circle the multiplication sign so we know to multiply the two factors and find their product.

Step 2

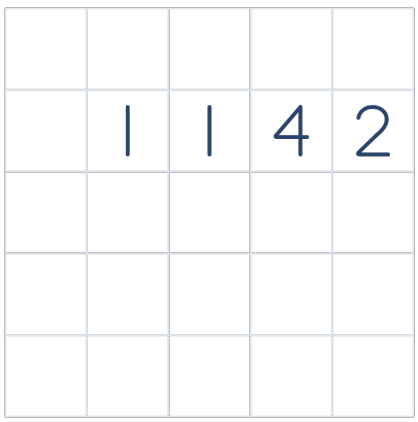
1,142 × 2 = ☐



First, check whether a mental method would be quicker. The factor 2 multiplies each place value in 1,142. Line up the digits to keep each place value in its own column. Start with 2 ones × 2.

Step 3

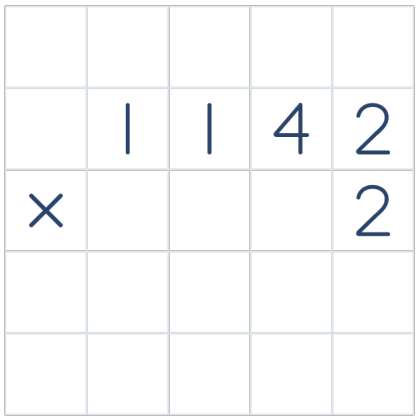
1,142 × 2 = ☐



The first digit of 1,142, 1, is in the thousands column, so we start there. Now, we write 1,142 in the correct columns, with one digit in each box.

Step 4

1,142 × 2 = ☐

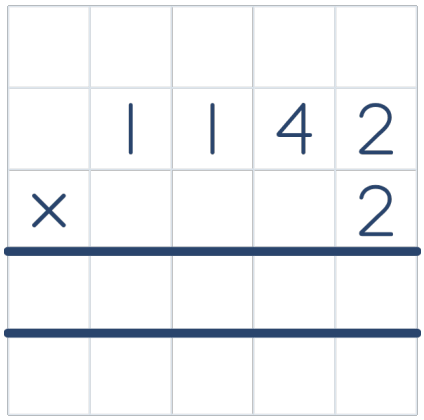


Remember: There must always be a digit in the ones column, even if it is a 0.

Then, we write the multiplication sign on the left and 2 in the ones column. We are multiplying by 2 ones.

Step 5

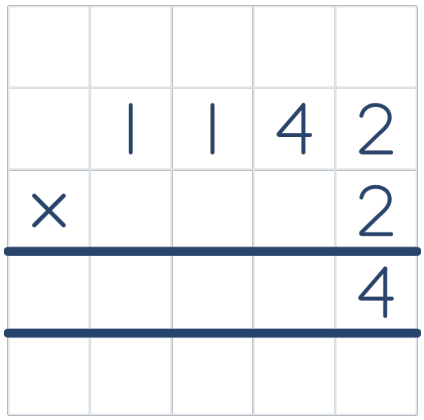
1,142 × 2 = ☐



Draw a line under 2. Leave one row for the product, then draw the second line below that row. Write exchanges below the second line.

Step 6

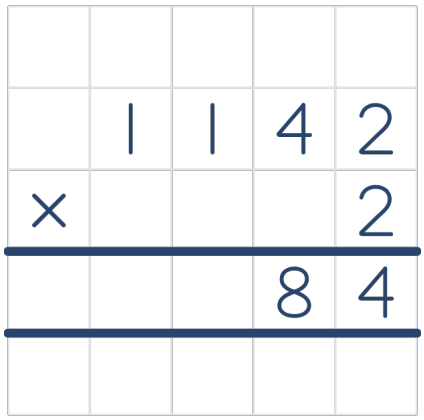
1,142 × 2 = ☐



First, we multiply the ones, the smallest place-value column. 2 ones × 2 = 4 ones. We write 4 in the ones column. No exchange is needed this time.

Step 7

1,142 × 2 = ☐

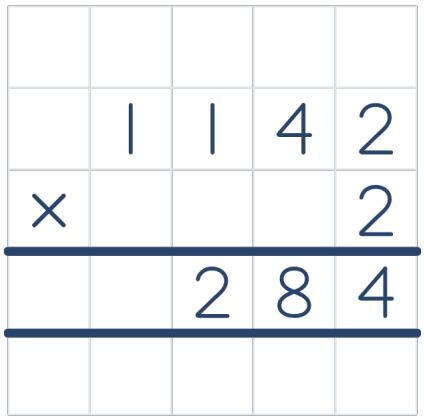


Remember: Check whether there is an exchange to add from the previous column. Include it before writing this answer.

Next, we multiply the tens. 4 tens × 2 = 8 tens. We write 8 in the tens column. No exchange is needed this time.

Step 8

1,142 × 2 = ☐

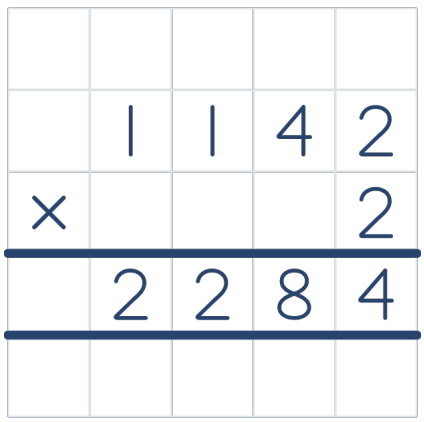


Remember: Check whether there is an exchange to add from the previous column. Include it before writing this answer.

Next, we multiply the hundreds. 1 hundred × 2 = 2 hundreds. We write 2 in the hundreds column. No exchange is needed this time.

Step 9

1,142 × 2 = ☐

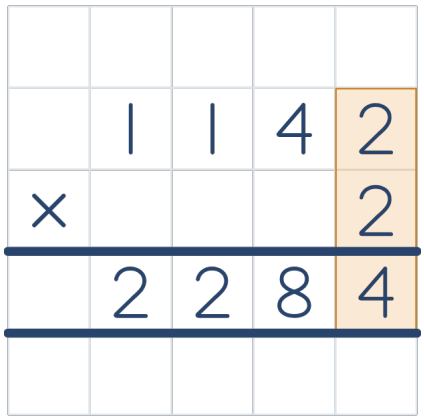


Remember: Check whether there is an exchange to add from the previous column. Include it before writing this answer.

Finally, we multiply the thousands. 1 thousand × 2 = 2 thousands. We write 2 in the thousands column. No exchange is needed this time.

Step 10

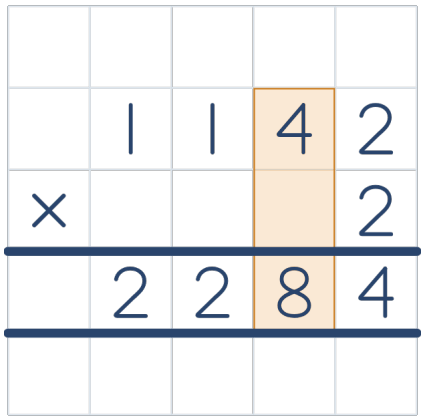
1,142 × 2 = ☐



Our product is 2,284. Before we copy our answer into the answer box, let's check each column, including the exchanges. First, we check the ones: 2 ones × 2 = 4 ones. We have correctly written 4 in the answer row, using the correct place-value columns.

Step 11

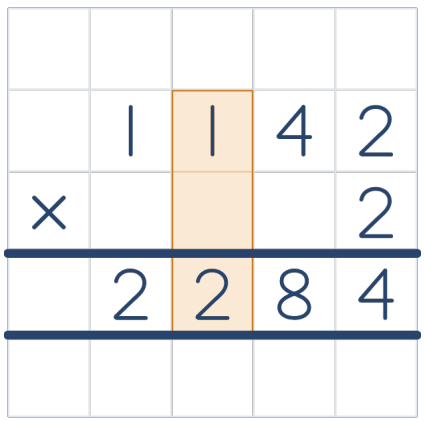
1,142 × 2 = ☐



Next, we check the tens: 4 tens × 2 = 8 tens. We have correctly written 8 in the answer row, using the correct place-value columns.

Step 12

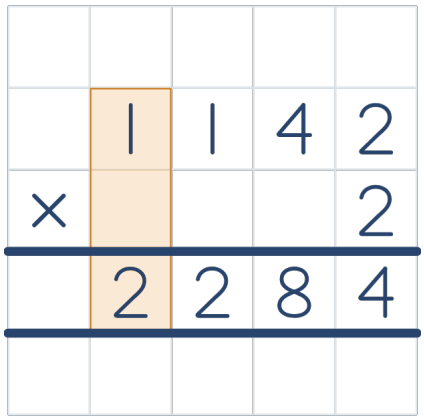
1,142 × 2 = ☐



Next, we check the hundreds: 1 hundred × 2 = 2 hundreds. We have correctly written 2 in the answer row, using the correct place-value columns.

Step 13

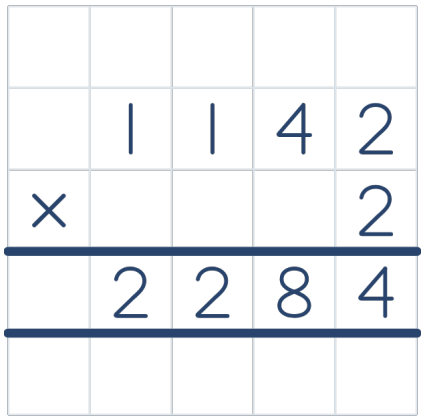
1,142 × 2 = ☐



Finally, we check the thousands: 1 thousand × 2 = 2 thousands. We have correctly written 2 in the answer row, using the correct place-value columns.

Step 14

1,142 × 2 = 2284



The product is 2284. Copy 2284 into the answer box. Make sure you copy the answer correctly.