Year 6 - Long Division — Lesson Guide

Step 1

1,935 ÷ 15 = ☐

First, we circle the division sign so we know to divide and find the quotient.

Step 2

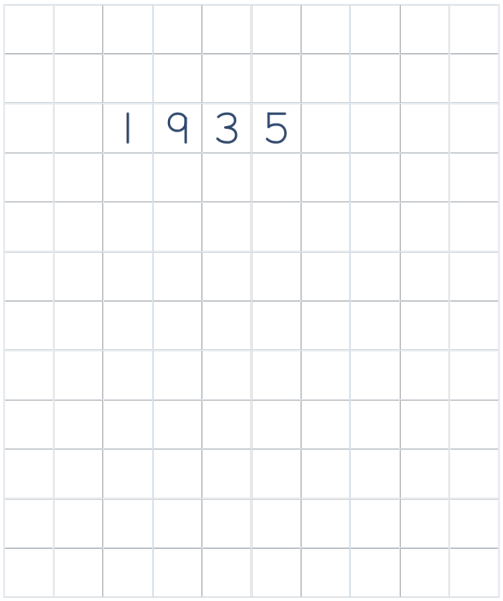
1,935 ÷ 15 = ☐

Remember: If the first digit inside the bracket is smaller than the divisor, leave the first quotient square empty. Read the first two digits inside the bracket together. Choose the largest total that fits.

We are dividing by a two-digit number, so we can use long division. We find one digit of the quotient at a time.

Step 3

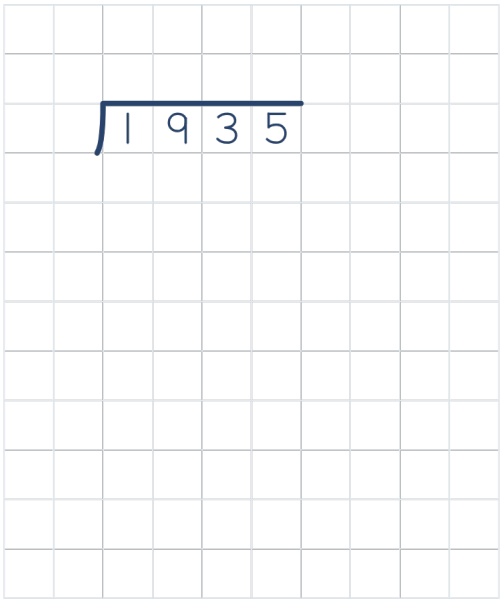
1,935 ÷ 15 = ☐



The dividend is 1,935, the number we are dividing. We leave a row above the dividend for the quotient, our answer. We write 1,935 in the correct columns, with one digit in each box.

Step 4

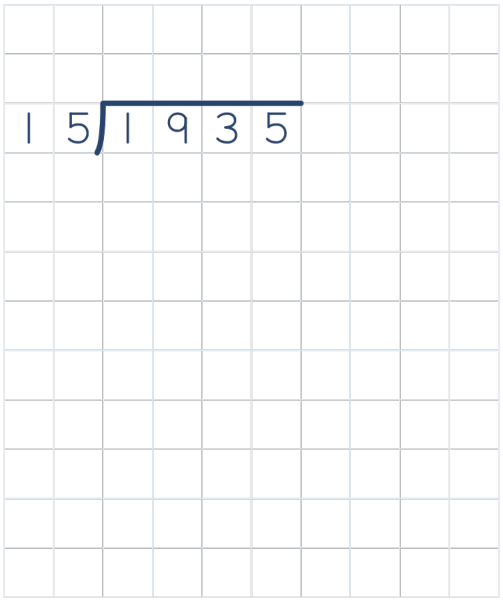
1,935 ÷ 15 = ☐



After that, we draw a short curved line on the left of the dividend and a straight line above it.

Step 5

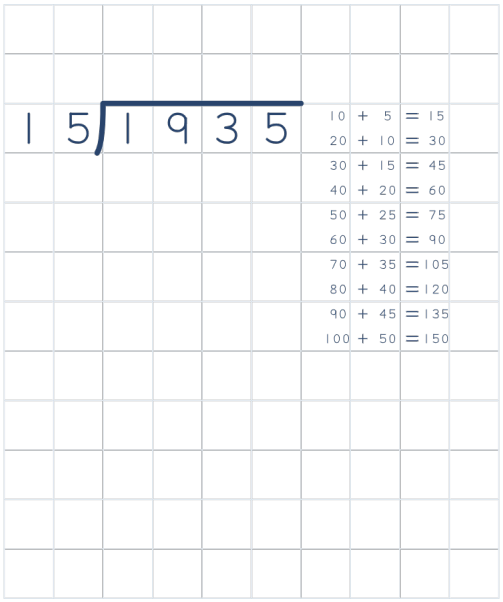
1,935 ÷ 15 = ☐



Then, we write 15 on the left of the curved line. This is the divisor, the number we are dividing by.

Step 6

1,935 ÷ 15 = ☐

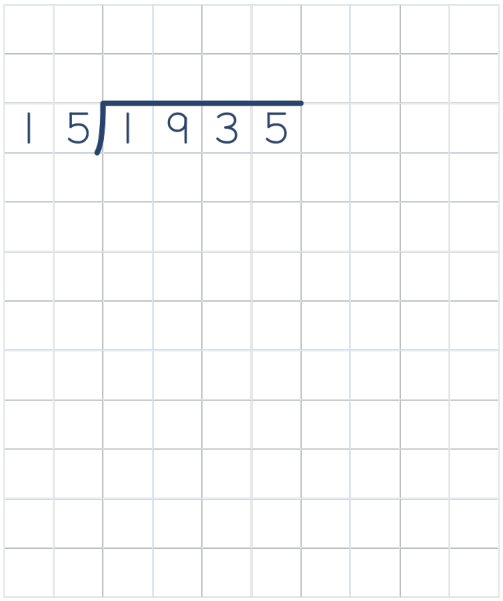


Remember: Use the largest total that fits. Check the next row to see whether it is too large.

Split 15 into 10 and 5. Write 10 + 5 = 15 on the right for one group. For two groups, add two lots of 10 and two lots of 5. Write 20 + 10 = 30. Build the other rows in the same way. Write 30 + 15 = 45 for three groups. 4 lots of 10 plus 4 lots of 5 is 60. 5 lots of 10 plus 5 lots of 5 is 75. 6 lots of 10 plus 6 lots of 5 is 90. 7 lots of 10 plus 7 lots of 5 is 105. 8 lots of 10 plus 8 lots of 5 is 120. 9 lots of 10 plus 9 lots of 5 is 135. 10 lots of 10 plus 10 lots of 5 is 150.

Step 7

1,935 ÷ 15 = ☐

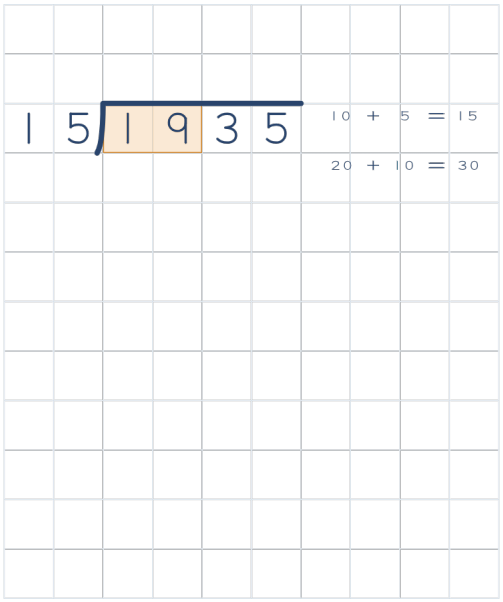


Remember: Leave unused squares before the first quotient digit empty. Once the quotient has started, write a zero when a place has no whole groups.

1 is smaller than 15. No whole group fits yet, so leave this quotient square empty.

Step 8

1,935 ÷ 15 = ☐

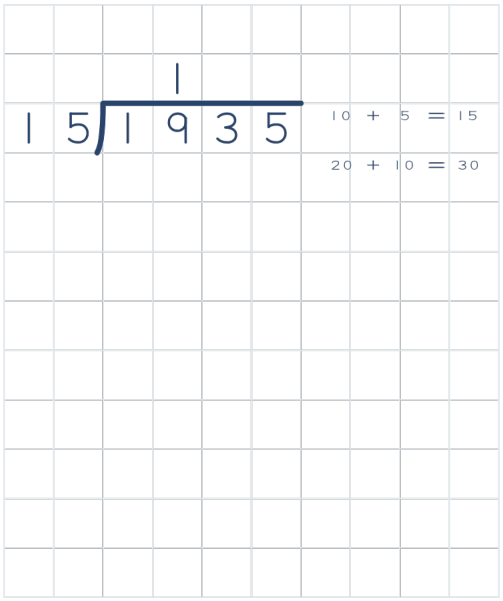


Remember: Leave unused squares before the first quotient digit empty. Once the quotient has started, write a zero when a place has no whole groups.

Leave the first quotient square empty because 1 is smaller than 15. Read the first two digits of 1,935 together as 19. Find the largest total in the table that fits into 19.

Step 9

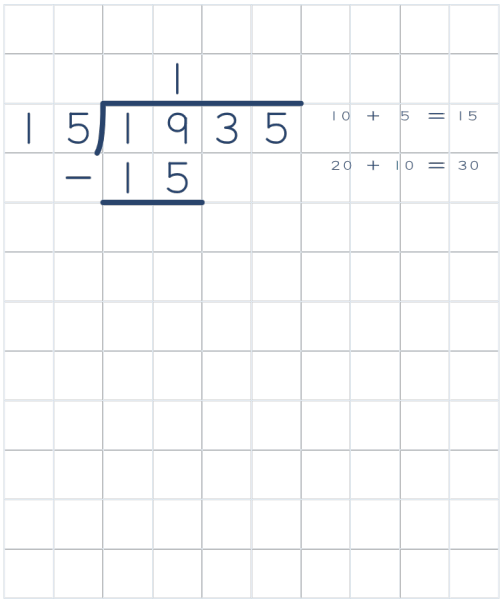
1,935 ÷ 15 = ☐



1 group makes 15, which fits into 19. 2 groups make 30, which is too large. We write 1 in the hundreds column above the line.

Step 10

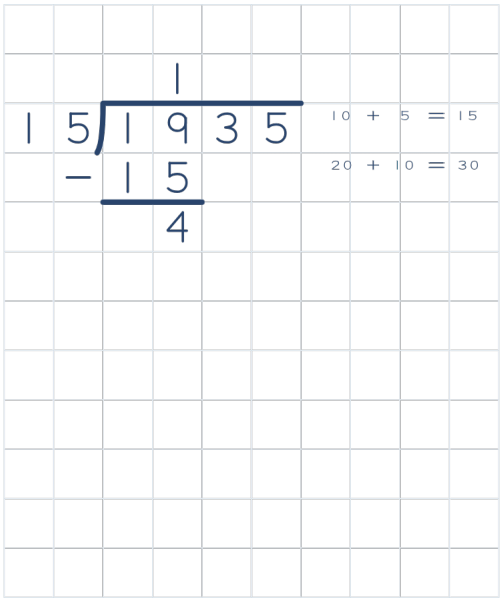
1,935 ÷ 15 = ☐



We write 15 below 19, line up the digits and write the subtraction sign. Then we draw a line underneath.

Step 11

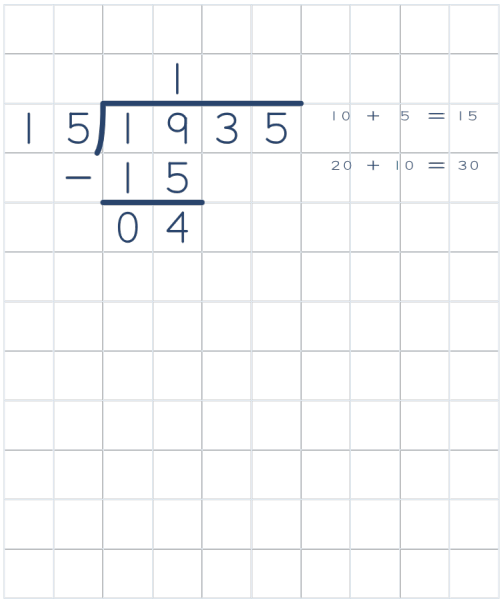
1,935 ÷ 15 = ☐



First, we subtract the hundreds in this subtraction, which is 9 hundreds – 5 hundreds. 9 hundreds – 5 hundreds = 4 hundreds, so we write 4 in the hundreds column. No exchange is needed this time.

Step 12

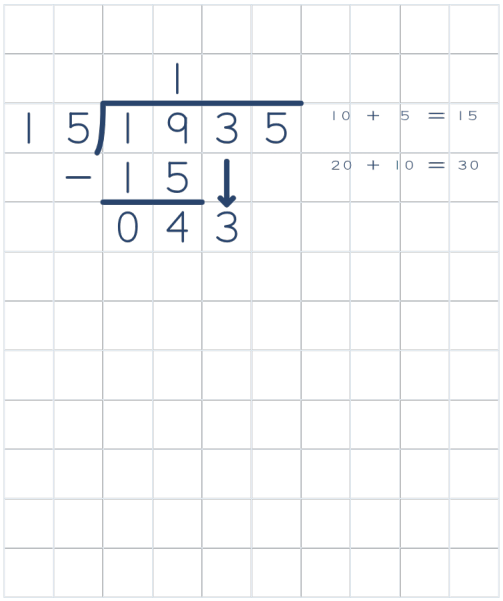
1,935 ÷ 15 = ☐



Finally, we subtract the thousands, which is 1 thousand – 1 thousand. 1 thousand – 1 thousand = 0 thousands, so we write 0 in the thousands column. No exchange is needed this time.

Step 13

1,935 ÷ 15 = ☐

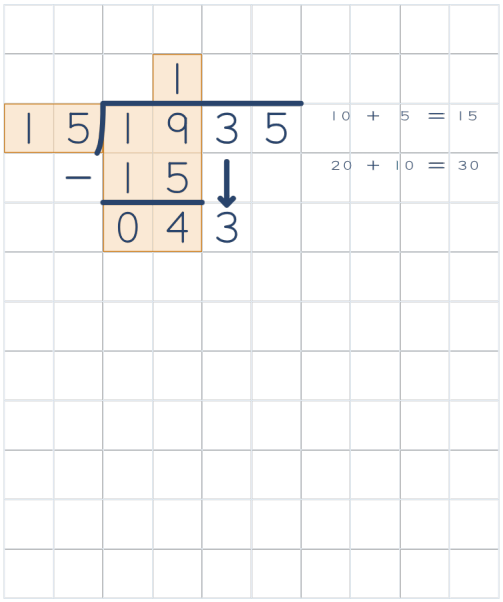


Remember: Bring down one digit at a time. Keep it in its original column.

Draw an arrow straight down from the 3 in the tens column. Copy 3 directly below, next to 4. The 4 hundreds left over become 40 tens. With the next 3 tens, we have 43 tens for the next step.

Step 14

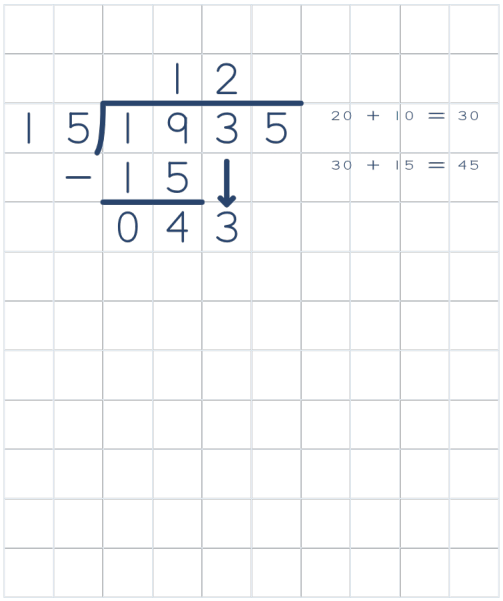
1,935 ÷ 15 = ☐



Check the subtraction for 19. 1 × 15 = 15. 19 – 15 = 4. 4 is smaller than 15. Use 4, the amount left over, for this check. The 3 we brought down is for the next division.

Step 15

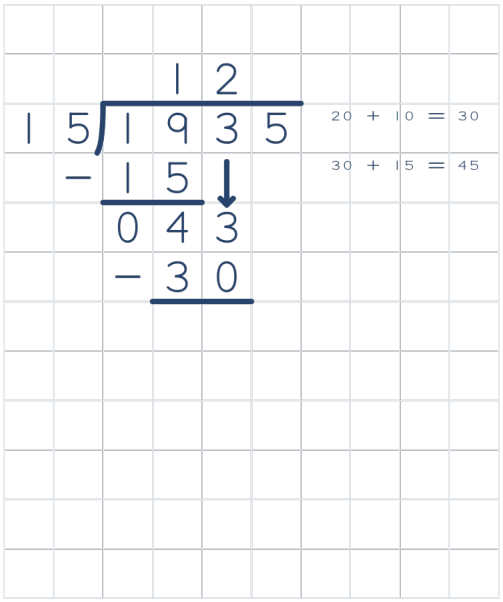
1,935 ÷ 15 = ☐



2 groups make 30, which fits into 43. 3 groups make 45, which is too large. We write 2 in the tens column above the line.

Step 16

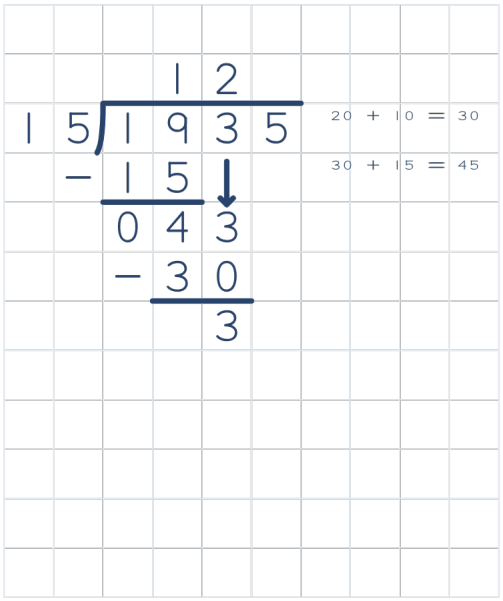
1,935 ÷ 15 = ☐



We write 30 below 43, line up the digits and write the subtraction sign. Then we draw a line underneath.

Step 17

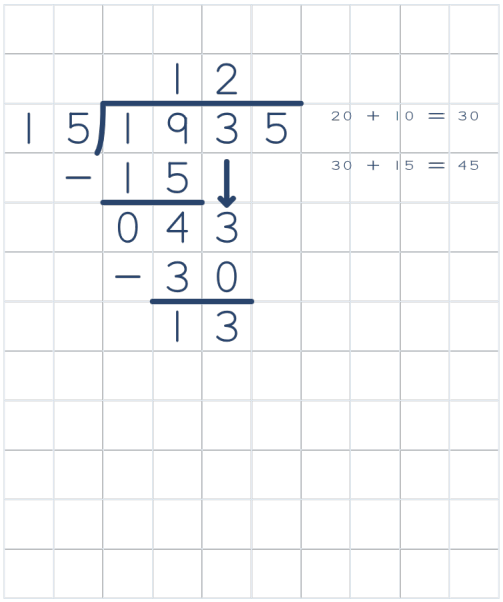
1,935 ÷ 15 = ☐



First, we subtract the tens in this subtraction, which is 3 tens – 0 tens. 3 tens – 0 tens = 3 tens, so we write 3 in the tens column. No exchange is needed this time.

Step 18

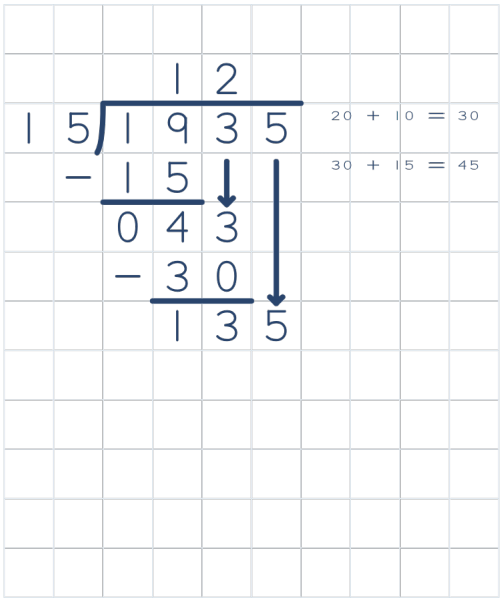
1,935 ÷ 15 = ☐



Finally, we subtract the hundreds, which is 4 hundreds – 3 hundreds. 4 hundreds – 3 hundreds = 1 hundred, so we write 1 in the hundreds column. No exchange is needed this time.

Step 19

1,935 ÷ 15 = ☐

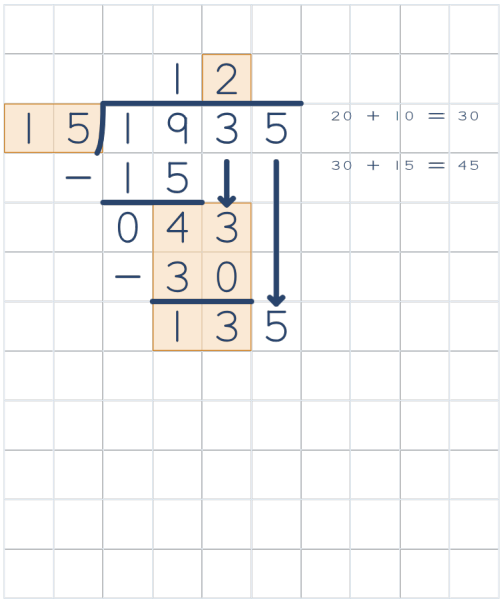


Remember: Bring down one digit at a time. Keep it in its original column.

Draw an arrow straight down from the 5 in the ones column. Copy 5 directly below, next to 13. The 13 tens left over become 130 ones. With the next 5 ones, we have 135 ones for the next step.

Step 20

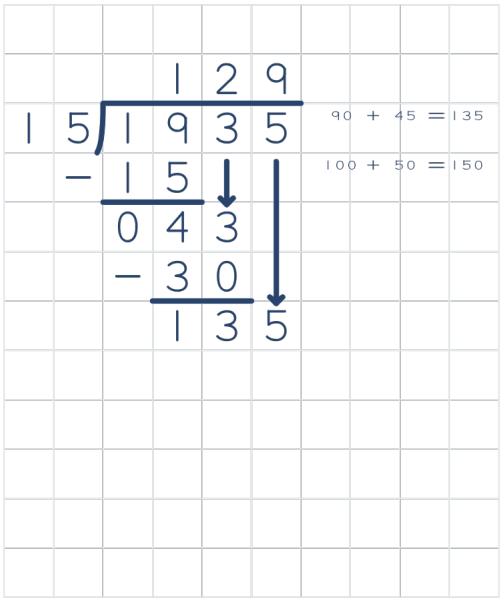
1,935 ÷ 15 = ☐



Check the subtraction for 43. 2 × 15 = 30. 43 – 30 = 13. 13 is smaller than 15. Use 13, the amount left over, for this check. The 5 we brought down is for the next division.

Step 21

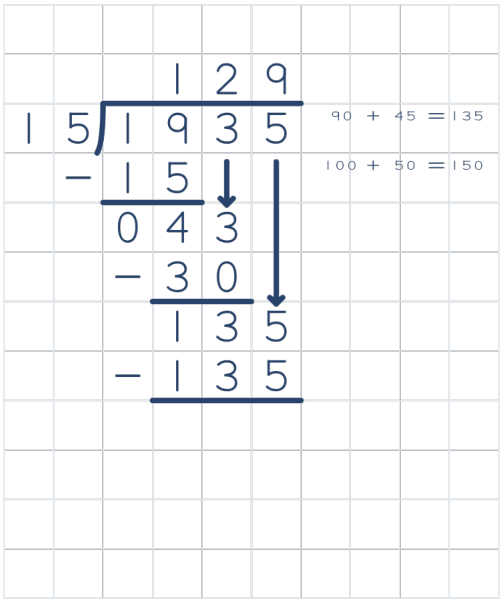
1,935 ÷ 15 = ☐



9 groups make 135, which fits into 135. 10 groups make 150, which is too large. We write 9 in the ones column above the line.

Step 22

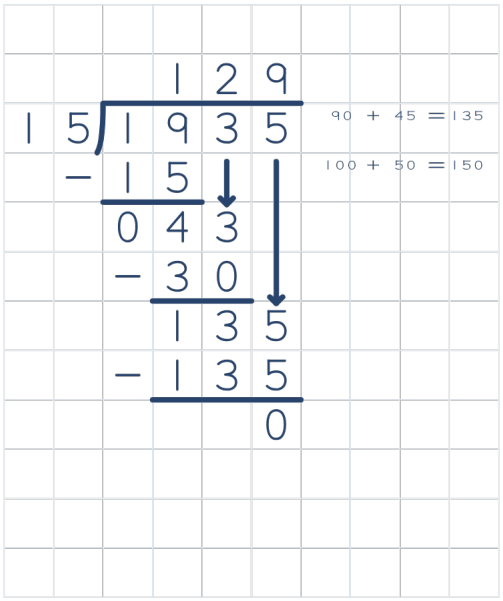
1,935 ÷ 15 = ☐



We write 135 below 135, line up the digits and write the subtraction sign. Then we draw a line underneath.

Step 23

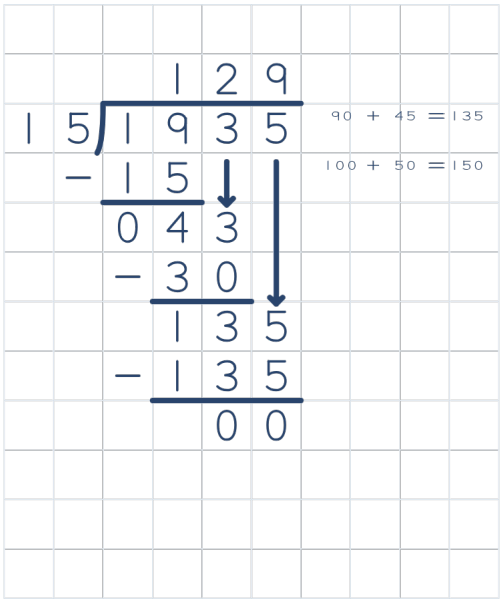
1,935 ÷ 15 = ☐



First, we subtract the ones, the smallest place-value column, which is 5 ones – 5 ones. 5 ones – 5 ones = 0 ones, so we write 0 in the ones column. No exchange is needed this time.

Step 24

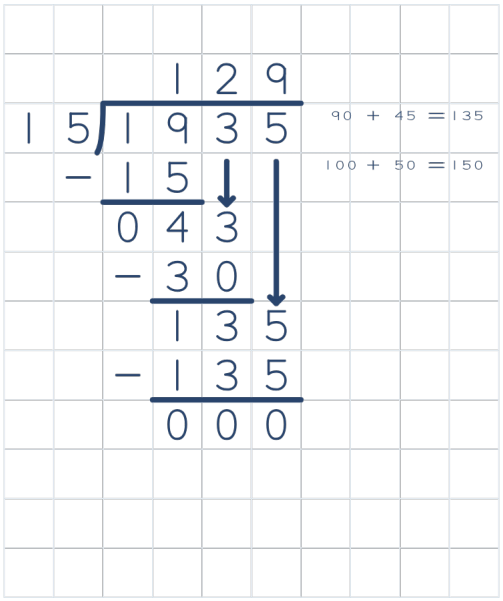
1,935 ÷ 15 = ☐



Next, we subtract the tens, which is 3 tens – 3 tens. 3 tens – 3 tens = 0 tens, so we write 0 in the tens column. No exchange is needed this time.

Step 25

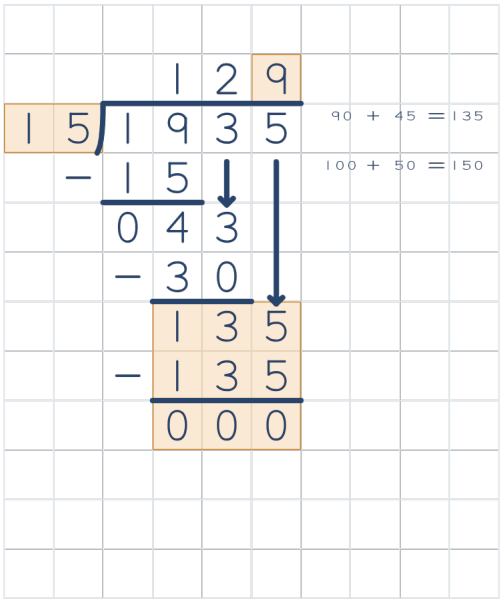
1,935 ÷ 15 = ☐



Finally, we subtract the hundreds, which is 1 hundred – 1 hundred. 1 hundred – 1 hundred = 0 hundreds, so we write 0 in the hundreds column. No exchange is needed this time.

Step 26

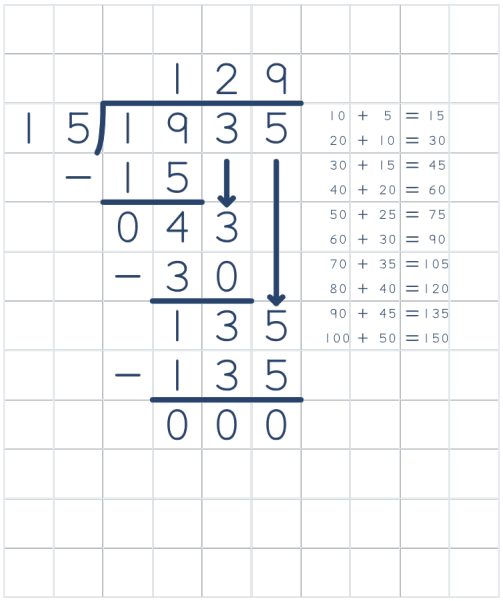
1,935 ÷ 15 = ☐



Check the subtraction for 135. 9 × 15 = 135. 135 – 135 = 0. 0 is smaller than 15.

Step 27

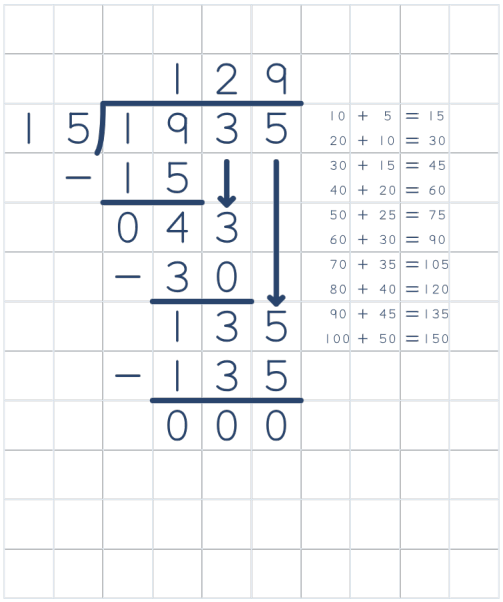
1,935 ÷ 15 = ☐



Nothing is left over after the last subtraction, so the division is exact.

Step 28

1,935 ÷ 15 = **129**



The quotient is 129. Copy 129 into the answer box. Make sure you copy the answer correctly.