Year 6 - Short Division — Lesson Guide

Step 1

1,566 ÷ 2 = ☐

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

Step 2

1,566 ÷ 2 = ☐

First, check whether a mental method would be quicker. I can see two exchanges, so I think short division will help.

Step 3

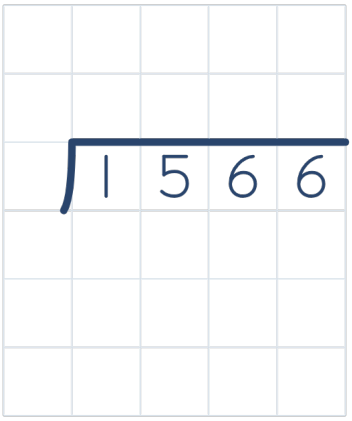
1,566 ÷ 2 = ☐



The dividend is 1,566, the number we are dividing. We leave a row above the dividend for the quotient, our answer. The first digit of 1,566, 1, is in the thousands column, so we start there. We write 1,566 in the correct columns, with one digit in each box.

Step 4

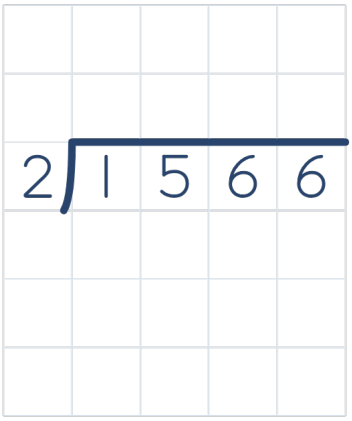
1,566 ÷ 2 = ☐



After that, we draw a short curved line on the left of the dividend and a straight line above it. We have kept the row above the line for our quotient.

Step 5

1,566 ÷ 2 = ☐

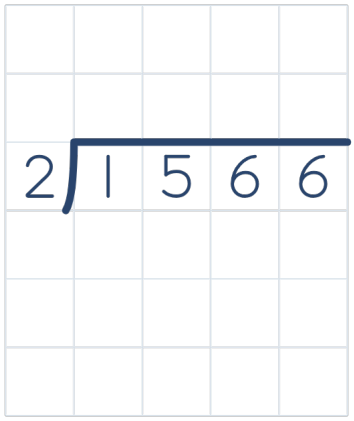


Remember: The divisor goes outside the bracket. The quotient goes above the line.

Then, we write 2 on the left of the curved line. This is the divisor, the number we are dividing by.

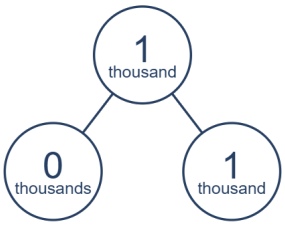
Step 6

1,566 ÷ 2 = ☐



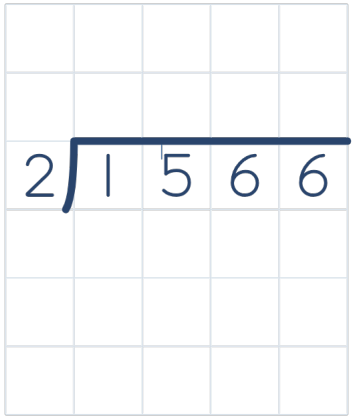
Remember: Leave unused squares before the first quotient digit empty. Once the quotient has started, write a zero when a place has no whole groups.

Start with the 1 thousand in 1,566. There are too few thousands to give each of the 2 groups one. Leave the first quotient square empty. Exchange the 1 thousand in the next step.



Step 7

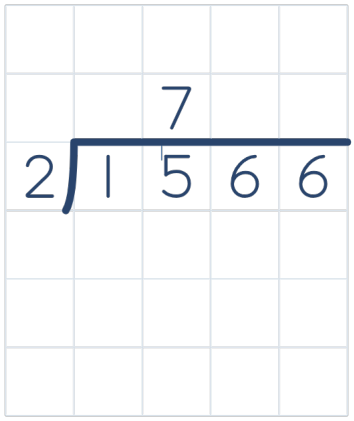
1,566 ÷ 2 = ☐



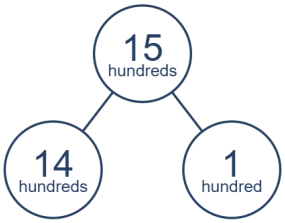
Now, we exchange the 1 thousand left over for 10 hundreds. We write a smaller 1 at the top left of the next square, to the left of the 5 already there. Together they show 15 hundreds, ready for the next step.

Step 8

1,566 ÷ 2 = ☐

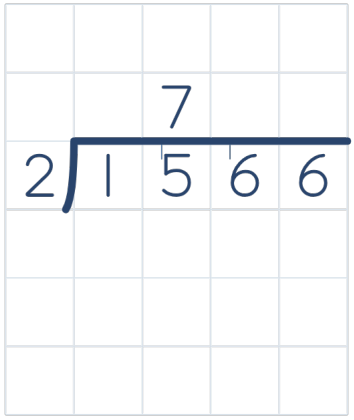


Read the small 1 and the 5 together as 15 hundreds. The small 1 stands for 10 hundreds exchanged from the thousands column. Divide 15 hundreds by 2. Each group gets 7 hundreds and 1 hundred is left over. Write 7 in the hundreds answer square above the line. We will exchange the 1 hundred left over in the next step.



Step 9

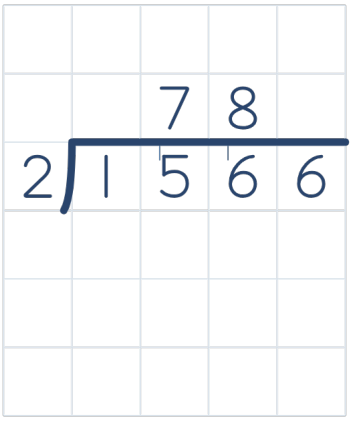
1,566 ÷ 2 = ☐



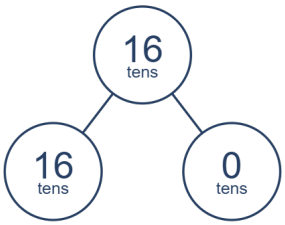
Now, we exchange the 1 hundred left over for 10 tens. We write a smaller 1 at the top left of the next square, to the left of the 6 already there. Together they show 16 tens, ready for the next step.

Step 10

1,566 ÷ 2 = ☐

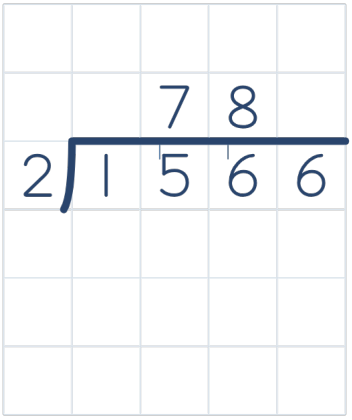


Read the small 1 and the 6 together as 16 tens. The small 1 stands for 10 tens exchanged from the hundreds column. Divide 16 tens by 2. Each group gets 8 tens. Write 8 in the tens answer square above the line.



Step 11

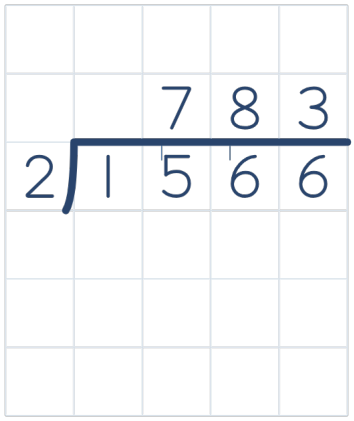
1,566 ÷ 2 = ☐



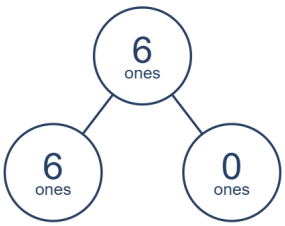
We have shared all 16 tens equally into 2 groups. There are no tens left to exchange. Move to the 6 in the ones column.

Step 12

1,566 ÷ 2 = ☐

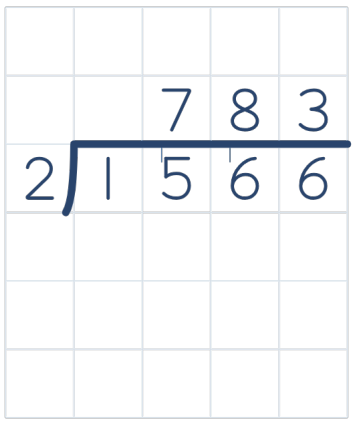


Share 6 ones equally into 2 groups. Each group gets 3 ones. Write 3 in the ones answer square above the line.



Step 13

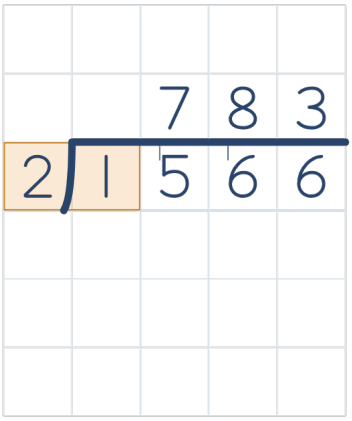
1,566 ÷ 2 = ☐



Nothing is left over, so we have finished dividing. Our quotient is 783.

Step 14

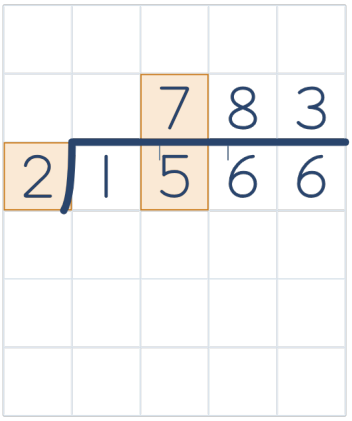
1,566 ÷ 2 = ☐



Our quotient is 783. Before we copy our answer into the answer box, let's check each column, including the exchanges. First, we check the thousands. We ask again, "How many 2s are in 1?" 0 groups of 2 make 0, with 1 left over. We have left the first quotient position empty because there are no whole groups. We have exchanged the 1 thousand left over into the next column.

Step 15

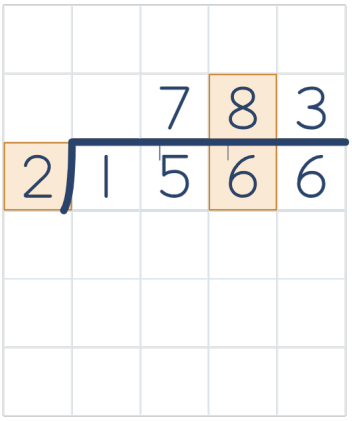
1,566 ÷ 2 = ☐



Next, we check the hundreds. We ask again, "How many 2s are in 15?" 7 groups of 2 make 14, with 1 left over. We have written 7 above this column. We have exchanged the 1 hundred left over into the next column.

Step 16

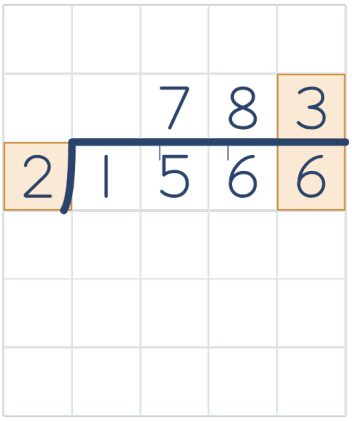
1,566 ÷ 2 = ☐



Next, we check the tens. We ask again, "How many 2s are in 16?" 8 groups of 2 make 16. We have written 8 above this column. There is nothing left over in this column.

Step 17

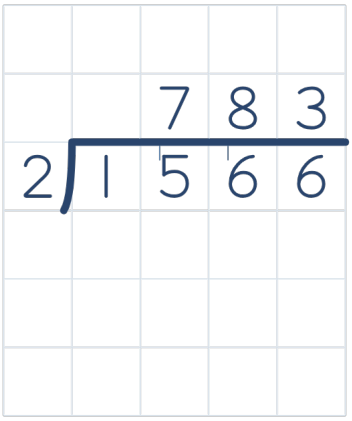
1,566 ÷ 2 = ☐



Finally, we check the ones. We ask again, “How many 2s are in 6?” 3 groups of 2 make 6. We have written 3 above this column. There is nothing left over in this column.

Step 18

1,566 ÷ 2 = **783**



The quotient is 783. Copy 783 into the answer box. Make sure you copy the answer correctly.