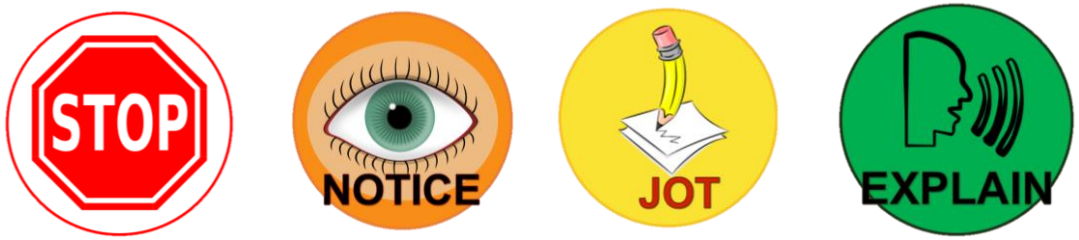
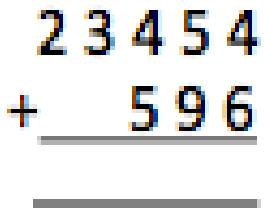
Calculation Methods

Remember: Is this the most efficient method?

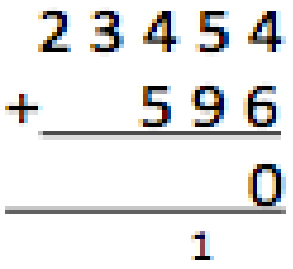


Column Addition

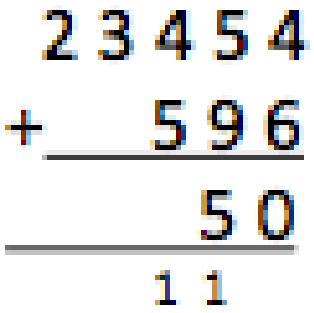
Step 1
Layout the calculation



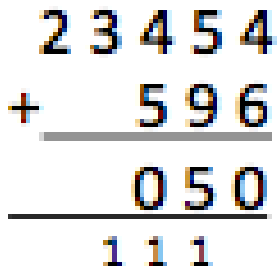
Step 2
The sum of 4 and 6 is 10, so there are no ones and 1 ten



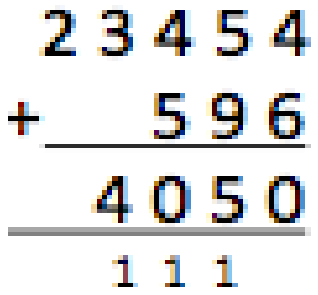
Step 3
The sum of 5 tens and 9 tens is 14 tens, plus my extra 10 is 15 tens, which is 150. There are 5 tens and 1 hundred.



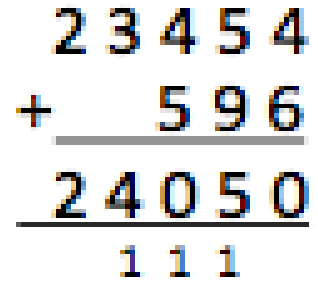
Step 4
The sum of 4 hundreds and 5 hundreds, plus my extra 100 is 10 hundreds, which is 1000. There are no hundreds and 1 thousand.



Step 5
The sum of 3 thousands plus my extra thousand is 4000.

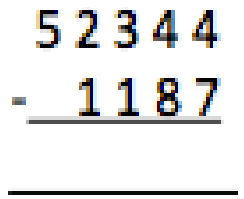


Step 6
The sum of 20 thousands and zero is 20,000.

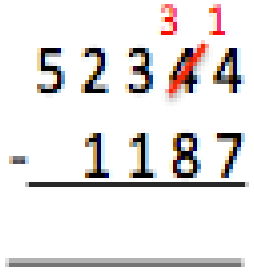


Column Subtraction

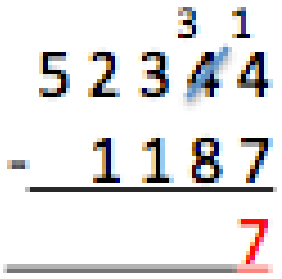
Step 1
Layout the calculation



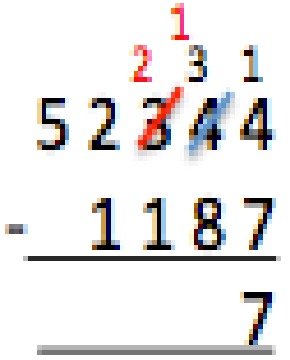
Step 2
The 1's column: Because 7 is greater than 4, exchange a ten for ten 1's. So there are now 3 tens and fourteen 1's.



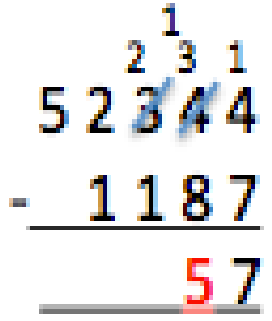
Step 3
Now, 14 ones subtract 7 ones makes 7 ones – record this



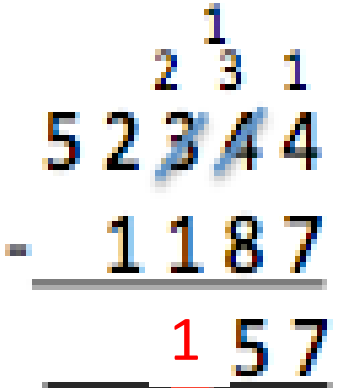
Step 4
The 10's column: Because 8 tens is greater than 3 tens, exchange a 100 for 10 tens. So there are now 2 hundreds and 13 tens (130).



Step 5
Now, 13 tens subtract 8 tens makes 5 tens – record this



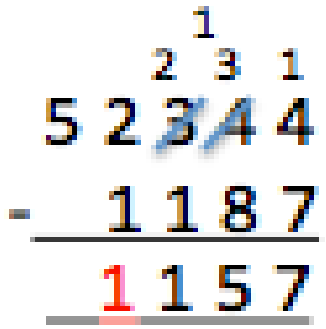
Step 6
The 100's column: 2 hundreds subtract 1 hundred makes 100 – record this



Column Subtraction

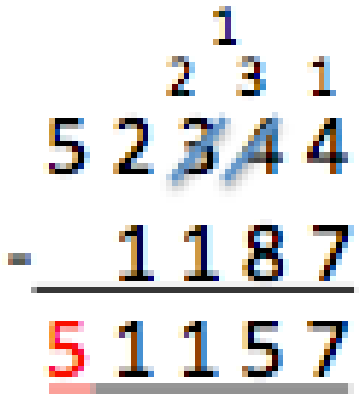
Step 7

The 1000's column:
2 thousands subtract
1 thousand makes one
thousand – record this



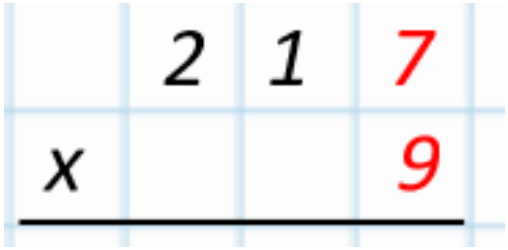
Step 8

The 10,000's column:
There are only five
10,000's with nothing to
subtract – record this

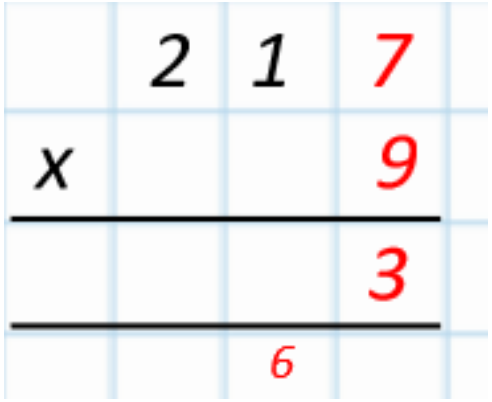


Short Multiplication

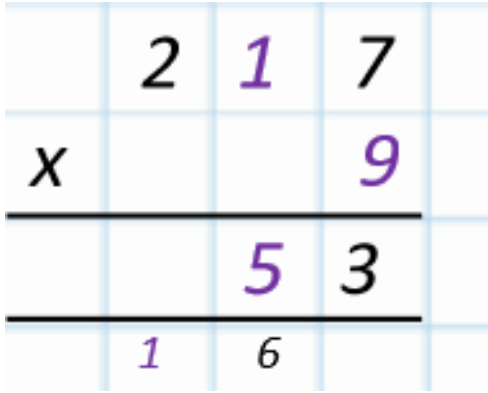
Step 1
Layout the calculation



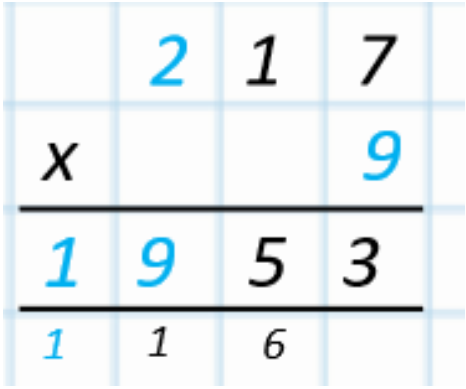
Step 2
Multiply the ones digit by the multiplier – 7 x 9 = 63.I have 3 ones and 6 tens.



Step 3
Multiply the tens digit by the multiplier – 10 x 9 = 90, plus my 6 tens = 150. I have 5 tens and 1 hundred.

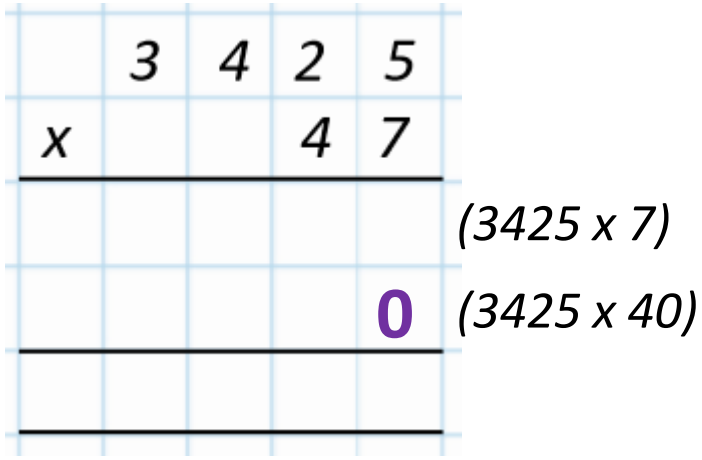


Step 4
Multiply the hundreds digit by the multiplier 200 x 9 = 1800, plus my 1 hundred = 1900. I have 1 thousand and 9 hundreds.

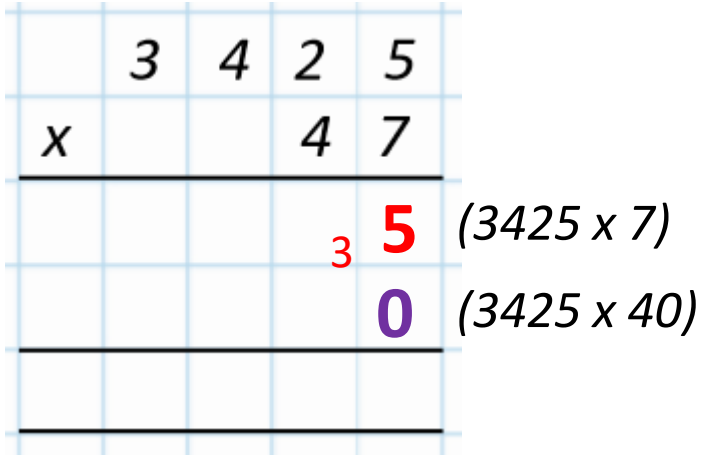


Long Multiplication

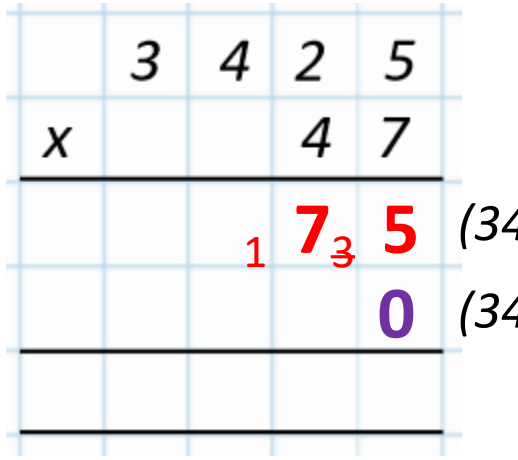
Step 1
Layout the calculation



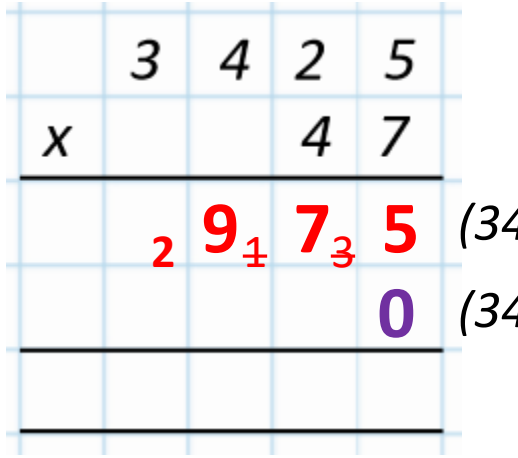
Step 2
Multiply the ones digit by the ones multiplier. 5 x 7 = 35. I have 5 ones and 3 tens.



Step 3
Multiply the tens digit by the ones multiplier. 20 x 7 = 140, plus my 3 tens = 170. I have 1 hundred and 7 tens.



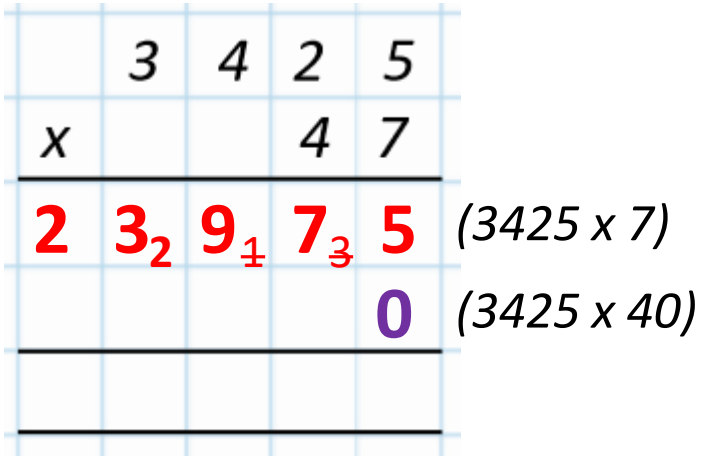
Step 4
Multiply the hundreds digit by the ones multiplier. 400 x 7 = 2800, plus my 1 hundred = 2900. I have 2 thousands and 9 hundreds.



Long Multiplication

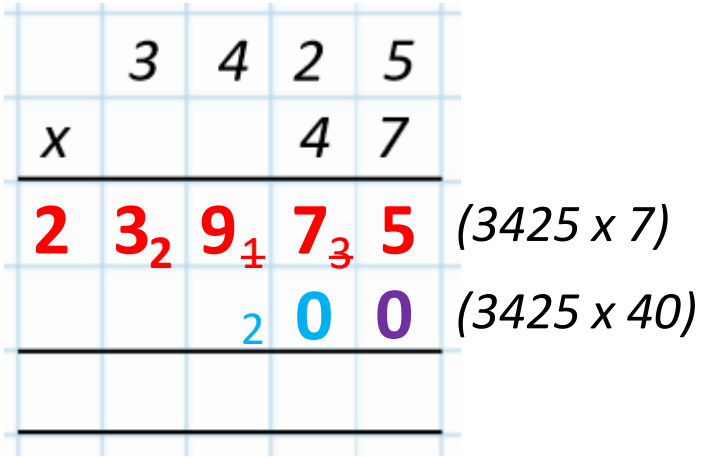
Step 5

Multiply the thousands digit by the ones multiplier. 3000 x 7 = 21,000, plus the 2 thousands = 23,000.



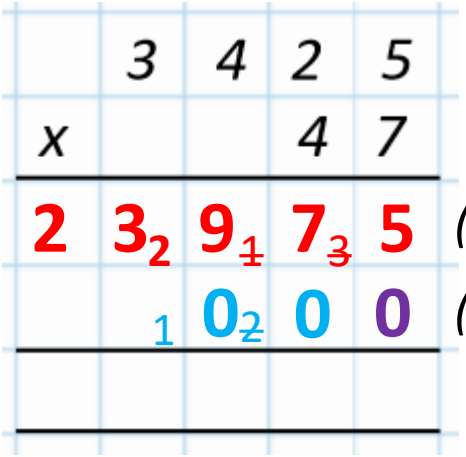
Step 6

Multiply the ones digit by the tens multiplier. 5 x 40 = 200. I have 0 ones, 0 tens and 2 hundreds.



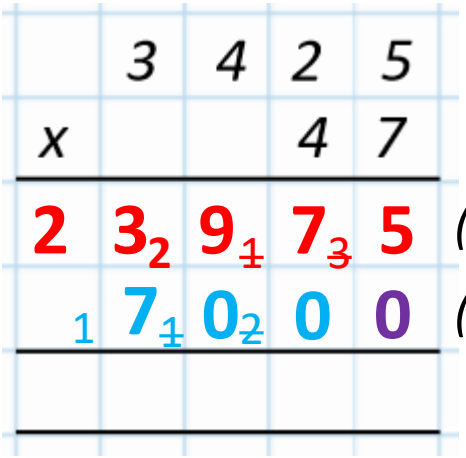
Step 7

Multiply the tens digit by the tens multiplier. 20 x 40 = 800, plus the 2 hundreds = 1000. I have 0 hundreds and 1 thousand.



Step 8

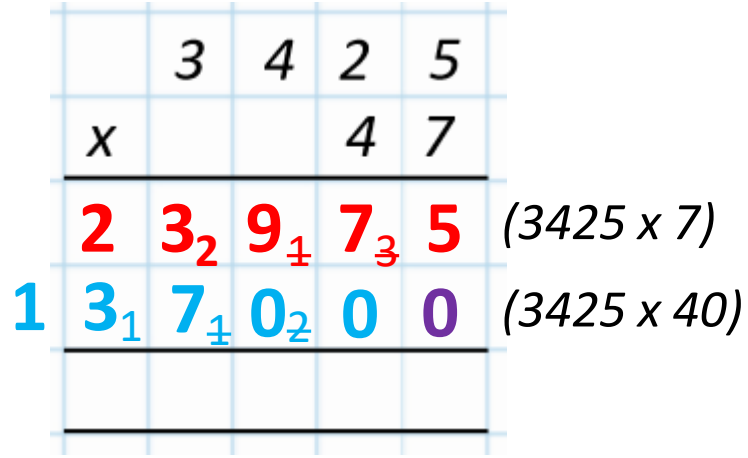
Multiply the hundreds digit by the tens multiplier. 400 x 40 = 16,000, plus the 1 thousand = 17,000. I have 7 thousands and 1 ten thousand.



Long Multiplication

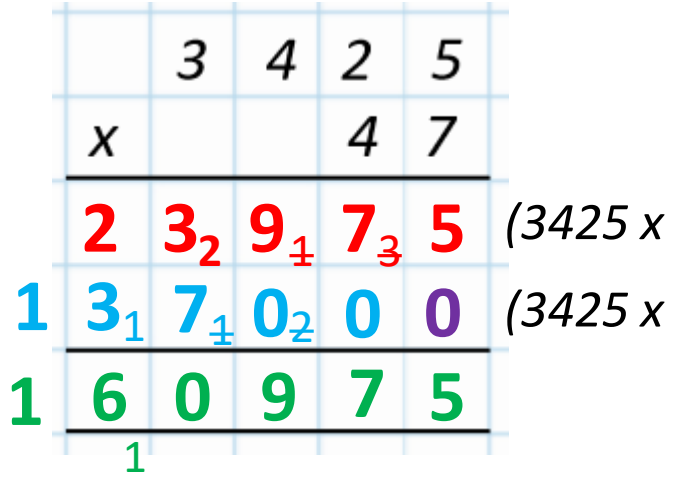
Step 9

Multiply the thousands digit by the tens multiplier. 3000 x 40 = 120,000, plus the 10,000 = 130,000. I have 3 ten thousands and 1 hundred thousand.



Step 10

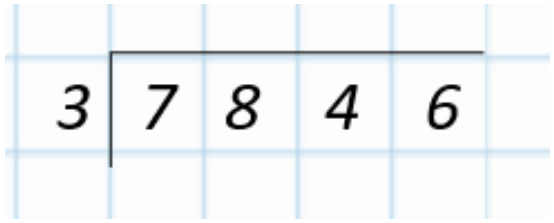
Now, add both of the partial answers together to get your final answer.



Short Division

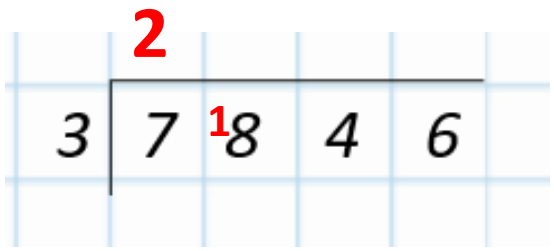
Step 1

Layout the calculation. Place the dividend (number you're dividing) inside the grid and the divisor (number you're dividing it by) on the outside.



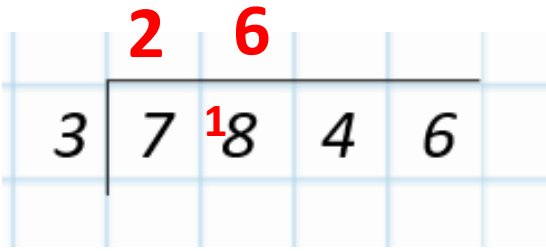
Step 2

How many groups of 3 thousands are there in 7 thousands? There are 2 groups with 1 group remaining.



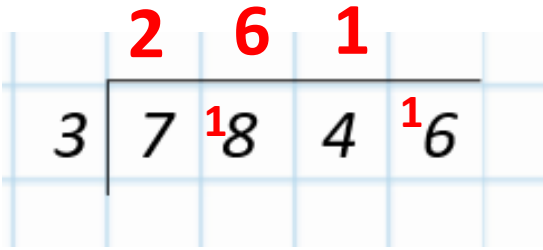
Step 3

How many groups of 3 hundreds are there in 1800? There are 6 groups.



Step 4

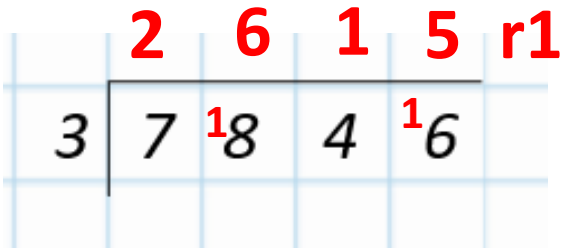
How many groups of 3 tens are there in 4 tens? There is 1 group with 1 group remaining.



Short Division

Step 5

How many groups of 3 ones are there in 16 ones? There are 5 groups with 1 group remaining.



When you reach the last digit, any remainders are written after with an ‘r’.