Division Sample Lesson

- **The Long Division Algorithm**

This lesson simply connects the traditional long division algorithm with the successive subtraction process which students have been using up to now. To emphasize that this is just a new way to record what we have been doing, the examples are taken directly from the lessons in earlier sections. You may want to review some of the examples from Section 59 before beginning this lesson.

For each example, emphasize the sameness of the two calculations.

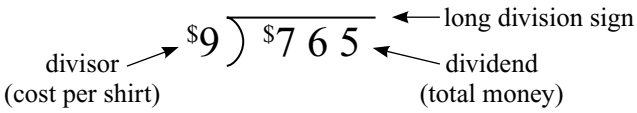
A. Consider this problem:

The Parents' Club raised $765 to buy school T-shirts. Each shirt costs $9. How many T-shirts can be bought?

a. The calculations at right show the process we have been using to answer such division questions.

$765	total money	
− $720	buys 80 T-shirts	(8 sets of ten)
$45	money left	
− $45	buys 5 T-shirts	
0		85 T-shirts

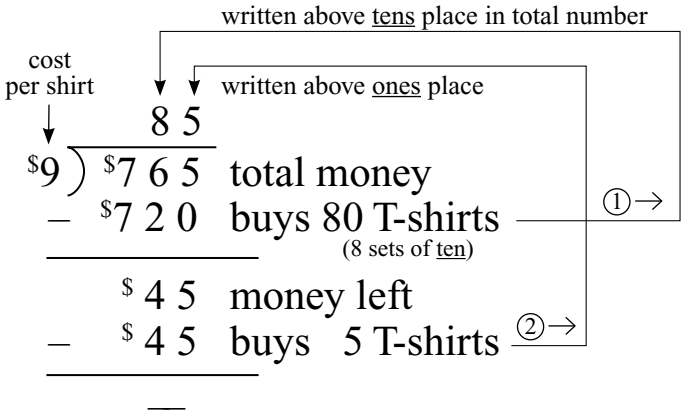
b. The usual way of carrying out this process begins with what we call the "long division sign". It is written with the dividend (in this case, the total money) and the divisor (in this case, the cost of each shirt).



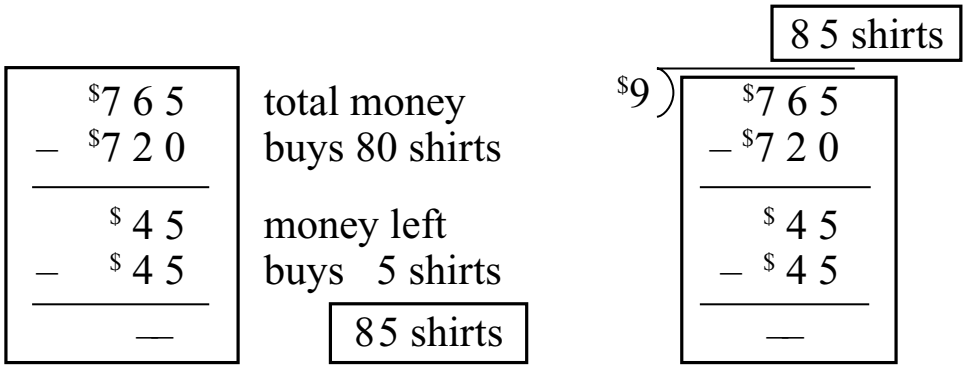
$9) $765 means $765 ÷ $9

c. Also, in this way of recording the division process, we write the quotient above the long division sign instead of at the end of the calculations.

This is what the whole process looks like:



d. Now look at the two processes, side-by-side:



Both processes tell us that 765 ÷ 9 = 85. Notice that the calculations are exactly alike!