

HOW TO COMPUTE THE SUBTRACTION (ALGORITHM BASED ON NUMBERS – ABN):

The subtraction consists of take the same quantity from the two numbers until one of them becomes 0.

We begin from left to right, removing the higher quantities first (hundreds first and later we can remove the tens and finally the units), although we could also remove them in a combined way (hundreds and tens together, hundreds and units together and so on).

1º

653-486		
400		

I take 400 from both numbers and I indicate it in the first column. Instead of 400 I could have chosen other different quantity (as 300, 200, 100 ...).

2º

653-486		
400	253	86

In the second column I obtain $653-400=253$. In the third column I obtain $486-400=86$.

3º

653-486		
400	253	86
50		

I take 50 from both numbers and I indicate it in the first column. It is convenient to take the smaller value of the two tens.

4º

653-486		
400	253	86
50	203	36

In the second column I obtain $253-50=203$. In the third column I obtain $86-50=36$.

5º

653-486		
400	253	86
50	203	36
3		

I take 3 from both numbers and I indicate it in the first column. It is convenient to take the smaller value of the two units.

6º

653-486		
400	253	86
50	203	36
3	200	33

In the second column I obtain $203-3=200$. In the third column I obtain $36-3=33$.

7º

653-486		
400	253	86
50	203	36
3	200	33
30	170	3

I take 30 from both numbers and I indicate it in the first column. The complementary of 30 is 70 so the subtraction is easy.

8º

653-486		
400	253	86
50	203	36
3	200	33
30	170	3
3	167	0

I take 3 from both numbers and I indicate it in the first column. The complementary of 3 is 7 so the subtraction is easy.

Just as the student feel confident in the computation of the algorithm the number of steps will decrease until he/she is able to do it by heart. Until then it is important to allow the student to follow so many steps as he/she needs.