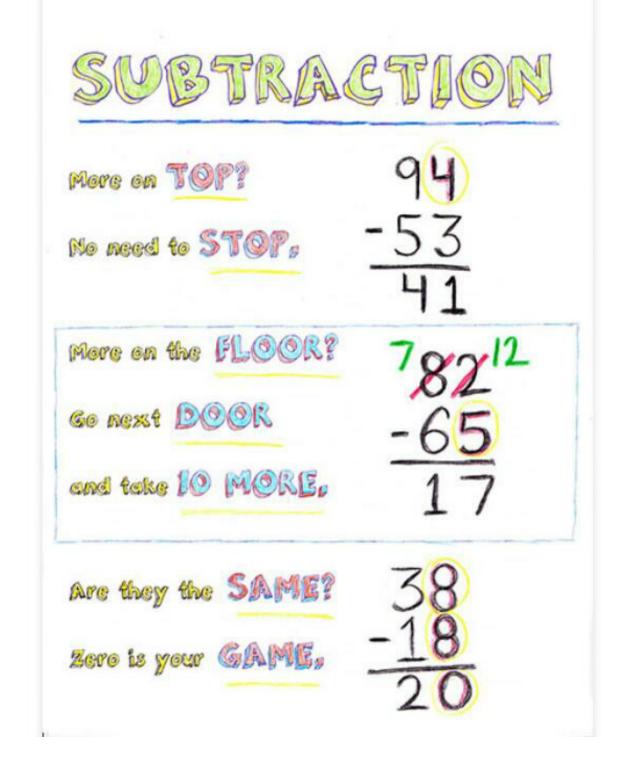
## Subtraction with borrowing

3rd and 4th std 17/9/2020

To subtract numbers with More than one digit



## How to Borrow When Subtracting

Sometimes, when you are subtracting large numbers, the top digit in a column is smaller than the bottom digit in that column. In that case, you need to borrow from the next column to the left. Borrowing is a two-step

process:



Subtract 1 from the top number in the column directly to the left.

Cross out the number you're borrowing from, subtract 1, and write the answer above the number you crossed out.

## 2 Add 10 to the top number in the column you were working in.

For example, suppose you want to subtract 386 – 94. The first step is to subtract 4 from 6 in the ones column, which gives you 2:

38**6** <u>- 9</u>4 2

When you move to the tens column, however, you find that you need to subtract 8 – 9. Because 8 is smaller than 9, you need to borrow from the hundreds column. First, cross out the 3 and replace it with a 2, because 3 – 1 = 2: 2 **3**86 <u>- 94</u>

Next, place a 1 in front of the 8, changing it to an 18, because 8 + 10 = 18: 2 3 18 6 <u>- 9 4</u> 2

Now you can subtract in the tens column: 18 - 9 = 9:

2 **18** 6 - 94 92 The final step is simple: 2 - 0 = 2: **2** 18 6 - 94 2 9 2 Therefore, 386 - 94 = 292.

In some cases, the column directly to the left may not have anything to lend. Suppose, for instance, you want to subtract 1,002 – 398.

Beginning in the ones column, you find that you need to subtract 2 – 8. Because 2 is smaller than 8, you need to borrow from the next column to the left. But the digit in the tens column is a 0, so you can't borrow from there because the cupboard is bare, so to speak:

When borrowing from the next column isn't an option, you need to borrow from the nearest non-zero column to the left.

In this example, the column you need to borrow from is the thousands column. First, cross out the 1 and replace it with a 0. Then place a 1 in front of the 0 in the hundreds column:

0 11002 - 398

Now, cross out the 10 and replace it with a 9. Place a 1 in front of the 0 in the tens column: 0 9 4 **10 1**0 2 <u>- 3 9 8</u>

Finally, cross out the 10 in the tens column and replace it with a 9. Then place a 1 in front of the 2:

0 9 9 1 <del>10</del> **10 1**2 - 3 9 8

At last, you can begin subtracting in the ones column: 12 – 8 = 4:

Then subtract in the tens column: 9 - 9 = 0:

Then subtract in the hundreds column: 9 – 3

= 6:

0 9 9 1 <del>10 10</del> 12 <u>- 3 9 8</u> 6 0 4

Because nothing is left in the thousands column, you don't need to subtract anything else. Therefore, 1,002 – 398 = 604.