Generation of the check digit from the other digits in a number (In this example, we will assume the original number contained only 7 digits.) The following algorithm generates the check digit from the other 7 digits:

* Each digit in the number is given a weighting of 8, 7, 6, 5, 4, 3 or 2 starting from the left (weightings start from 8 since the number will become eight-digit when the check digit is added)
* The digit is multiplied by its weighting and then each value is added to make a total
* The total is divided by 11
* The remainder is then subtracted from 11 to find the check digit (note if the remainder is 10 then the check digit ‘X’ is used).

The example to be used has the following seven-digit number: 4 1 5 6 7 1 0

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