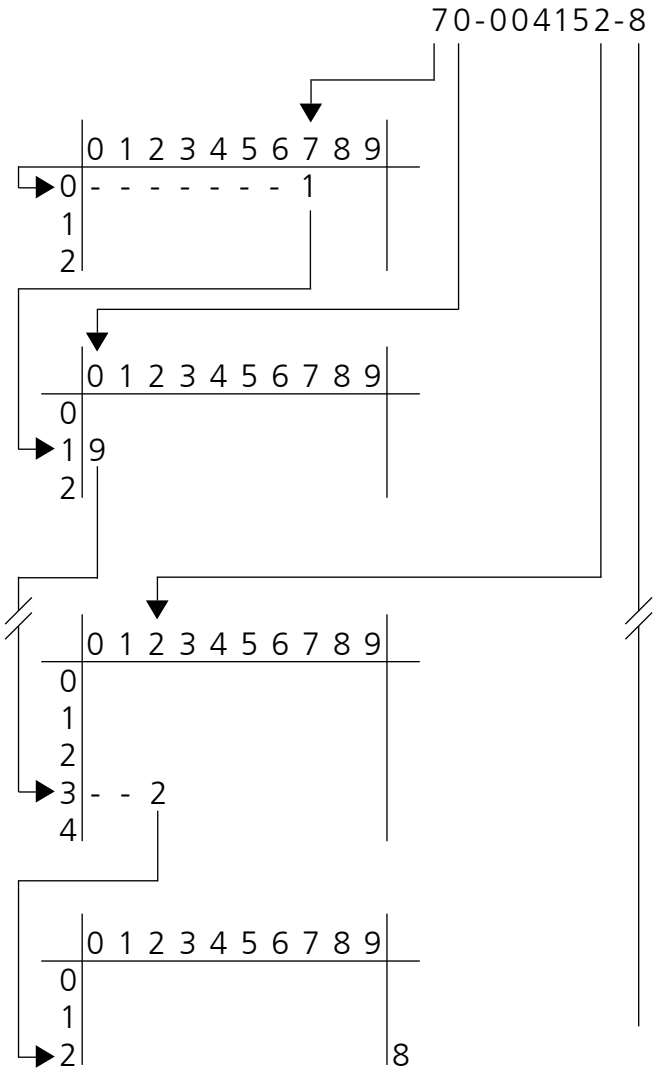
Check digit computation module 10, recursive

The check digit is to be computed according to module 10. Such computation applies, for instance, to postal account numbers, ISR and OSR customer numbers.

Carry	Digit series										Check digit
	0	1	2	3	4	5	6	7	8	9	
0	0	9	4	6	8	2	7	1	3	5	0
1	9	4	6	8	2	7	1	3	5	0	9
2	4	6	8	2	7	1	3	5	0	9	8
3	6	8	2	7	1	3	5	0	9	4	7
4	8	2	7	1	3	5	0	9	4	6	6
5	2	7	1	3	5	0	9	4	6	8	5
6	7	1	3	5	0	9	4	6	8	2	4
7	1	3	5	0	9	4	6	8	2	7	3
8	3	5	0	9	4	6	8	2	7	1	2
9	5	0	9	4	6	8	2	7	1	3	1

Example: postal account number 70-4152-?

Expand the postal account number to 8 digits:



Rules

- Starting with a carry of "0" and combining it with the first digit of the example, "7" results in a combination value or carry of "1"
- The carry of "1" combined with the second digit of the example "0" results in a combination value or carry of "9"
- etc.
- The carry of "3" combined with the last digit of the example "2" results in a combination value or carry of "2"
- The value in the last column for the final carry of "2" is the check digit "8"