Cryptography 101
One digit addition base 10
calculator-algebra.org

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Example

Add the one-digit numbers.

$$
\begin{aligned}
1+2 &= 3 \\
2+2 &= 4 \\
2+5 &= 7 \\
9+2 &= 11 \\
7+5 &= 12 \\
9+7 &= 16 \\
0+9 &= 9
\end{aligned}
$$

Example

Add the one-digit numbers.

$$
\begin{aligned}
1+3 &= 4 \\
4+7 &= 11 \\
2+8 &= 10 \\
9+8 &= 17 \\
5+5 &= 10
\end{aligned}
$$

+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

- To do one-digit addition quickly: make table with all possibilities.

Example

Add the one-digit numbers.

$$\begin{array}{r} 3 \\ +\,5 \\ \hline 8 \end{array} \qquad \begin{array}{r} {\scriptstyle 1} \\ 7 \\ +\,6 \\ \hline 13 \end{array} \qquad \begin{array}{r} {\scriptstyle 1} \\ 9 \\ +\,2 \\ \hline 11 \end{array}$$

+	0	1	2	3	4	5	6	7	8	9
0	0	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
2	2	3	4	5	6	7	8	9	10	11
3	3	4	5	6	7	8	9	10	11	12
4	4	5	6	7	8	9	10	11	12	13
5	5	6	7	8	9	10	11	12	13	14
6	6	7	8	9	10	11	12	13	14	15
7	7	8	9	10	11	12	13	14	15	16
8	8	9	10	11	12	13	14	15	16	17
9	9	10	11	12	13	14	15	16	17	18

- Addition can also be written in columns.