1. Start with the one's column.
2. While the current column has a number for either of the addends, repeatedly
(a) Add the two numbers in the current column plus any carry from last time; let's call this result the "sum."
(b) Write the one's column of the sum in the current column of the answer.
(c) Write the ten's column of the sum in the carry space of the next column to the left.
(d) Let the next column to the left become our new current column.
3. If the last round of the repetition had a carry, write it in a new column for the answer.
