

- If $c_1 \geq 2L$ and the membership cannot be eliminated based on c_1 , then the value c_2 of C_2 is also examined. If $c_2 \in [1, L - 1]$, then no elements have been inserted to C_2 and the value c_2 corresponds to z as defined in description of the insertion operation. We also know that only two increments are stored in C_1 and we can recover their values. If $c_2 = 1$ and $c_1 = 4L - 2$ then both increments are $2L - 1$ so if $2L - 1 \neq v_{g_i(x)}$ the membership is eliminated. Otherwise, we use $z = c_2$ to compute $z + L - 1$ and $c_1 - z - L + 1$. If $z + L - 1 \neq v_{g_i(x)}$ and $c_1 - z - L + 1 \neq v_{g_i(x)}$, then the membership is eliminated. This is referred to as *additional check II* in Table IV.