ADD-BINARY-INTEGERS(A, B, n)

1. $carry = 0$
2. **for** $i = 1$ **to** $n - 1$
3. $a = A[i]$
4. $b = B[i]$
5.   **if** $a + b + carry = 0$
6. $C[i] = 0$
7. $carry = 0$
8.   **if** $a + b + carry = 1$
9. $C[i] = 1$
10. $carry = 0$
11.   **if** $a + b + carry = 2$
12. $C[i] = 0$
13. $carry = 1$
14.   **if** $a + b + carry = 3$
15. $C[i] = 1$
16. $carry = 1$
17. $C[n] = carry$