Theorem 1 superseded by known results of Saks and Werman

We just learned that the basic version of the problem addressed in this technical report had been studied before in the literature, and known as the problem of "computing majority". Saks and Werman (Combinatorica 11 (1991), 383-387) first determined the exact complexity when there are only two values ($R = 1$ in the notation of our technical report), showing $f_1(n) = n - w_2(n)$. Another proof was given by Alonso, Reingold and Schott (Information Processing Letters 47(1993), 253-255). Thus, Theorem 1 in this technical report is superseded by the above result, and the open question (1) raised in Section 5 already has been answered. A new article containing several variants on this problem by Martin Aigner will soon appear in Discrete Applied Mathematics.

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