1 Euler's difference table and maximum permanents of $(0,1)$-matrices

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First, we will enumerate the injections from $[m]$ to $[n]$ without k-fixed-points, that is, injection f without i such that $f(i) = i+k$. We will deduce the exact values of maximum permanent of $(0,1)-m\times n$ matrices having $m-k$ numbers of zero entries for any non negative integers $0 \leq k \leq m \leq n$. Unexpectedly these values are related to the numbers d_n^k of k-fixed-points-permutations over $[n]$. The numbers d_n^k are the derivate of Euler's difference table.