

Note that although in this combination play the chance for the $(5 + 0)$ -win and $(5 + 1)$ -win are the same, the $(5 + 0)$ -win when it occurs will be a multiple win simultaneously in $(m - 1)$ blocks.

We can not compare the chances of the list in Table I.24 with those for a list with no overlap, for such a list is impossible unless the number of numbers, n , in Field 1 exceeds $5m - 1$. So we assume that $n > 5m - 1$ and a list with 0-overlap exists. For such a list, the chances are given by Table I.26.

Win	Chances for list of m blocks with 0-overlap
$(4 + 1)$ -win	$\frac{m \binom{5}{4} \binom{n-5}{1} \binom{1}{1} \binom{m-1}{0}}{m \binom{n}{5}} = \frac{5(n-5)}{\binom{n}{5}}$
$(5 + 0)$ -win	$\frac{m \binom{5}{5} \binom{1}{0} \binom{m-1}{1}}{m \binom{n}{5}} = \frac{(m-1)}{\binom{n}{5}}$
$(5 + 1)$ -win	$\frac{m \binom{5}{5} \binom{1}{1} \binom{m-1}{0}}{m \binom{n}{5}} = \frac{1}{\binom{n}{5}}$

Table I.26. Chances for list of m blocks with 0-overlap, and no shared number from Field 2

Five Number Combination Play in Euromillions

FNCP in a two-field lotto where each block has two numbers from Field 2 is different from the case where each block has one number from Field 2. In the former case, we define FNCP as comprising blocks where each block has the same set of five numbers from Field 1 and the same one number from Field 2 while the second number from Field 2 in each block is different from the second number in any other block. This generates $(m - 1)$ blocks as in Table I.27 when there are m numbers in Field 2; the numbers from Field 2 are denoted as a_i , where $i = 1$ to m .

The chances for $(4 + 1)$ -, $(5 + 0)$ -, and $(5 + 1)$ -wins are shown in Table I.28.