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Mastermind. (English) [Zbl 0717.05002](#)
Combinatorica 3, 325-329 (1983).

In the game “Mastermind” a player must determine a vector (x_1, \dots, x_n) , $1 \leq x_i \leq k$. He guesses a vector (q_1, \dots, q_n) and is told the number of i for which $q_i = x_i$ and the maximum number, over all permutations ϕ on $\{1, \dots, n\}$, of i with $q_i = x_{\phi_i}$. For $n = 4$ and $k = 6$ this is a popular commercial game. The strategy of selecting vectors q at random is examined and shown to be close to optimal in some cases.

MSC:

[05A05](#) Permutations, words, matrices
[91A05](#) 2-person games

Cited in **6** Reviews
Cited in **47** Documents

Keywords:

game; [Mastermind](#)

Full Text: [DOI](#)

References:

[1] D. E. Knuth, The computer as a Master Mind, *Journal of Recreational Mathematics* 9 (1976–77), 1–6. · [Zbl 0358.90075](#)

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