

Abstract

A Latin Square in the 24-Cell

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One of the six regular polytopes in R^4 is the 24-cell which consists of 24 octohedra. We define suitable subsets of the 24-element set and identify diametral pairs of elements. In this way we arrive at a regular linear space on 12 points, which turns out to be the non-cyclic Latin Square of order 4. In a similar way we define for the 120-cell a regular linear space on 60 points.