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Janko groups

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The Janko groups denoted by J_1, J_2, J_3 , and J_4 are four of the 26 sporadic groups. They were discovered by . Janko in 1966 and published in the article "A new finite simple group with abelian Sylow 2-subgroups and its characterization." (Journal of Algebra, 3, 1966, 32: 147-186).

Each of these groups have very intricate matrix representations as maps into large general linear groups. For example, the matrix K corresponding to J_4 gives a representation of J_4 in $GL_{112}(2)$.