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Classification of amply regular graphs with $b_1 = 6$. (English. Russian original) Zbl 1304.05033

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Summary: An undirected graph with v vertices in which the degrees of all vertices are equal to k, each edge is contained in exactly λ triangles, and the intersection of the neighborhoods of any two vertices at distance 2 contains exactly μ vertices is called amply regular with parameters (v, k, λ, μ). We complete the classification of amply regular graphs with $b_1 = 6$, where $b_1 = k - \lambda - 1$.

MSC:

05C12 Distance in graphs
05C07 Vertex degrees

Keywords:

amply regular graph; distance-regular graph

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