$(r, 2, (r-3)(r-1))$-REGULAR GRAPHS

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Abstract

A graph G is called $(r, 2, (r-3)(r-1))$- regular if each vertex in the graph G is distance one from exactly r vertices and each vertex in the graph G is distance two from exactly $(r-3)(r-1)$ number of vertices in G. That is, $d(v) = r$ and $d_2(v) = (r-3)(r-1)$, for all v in G. In this paper, we suggest a method to construct for any $r \geq 3$, there is $(r, 2, (r-3)(r-1))$- regular graph on $4 \times 2^{r-3}$ vertices.