

DISTANT DIVISOR GRAPHS

S. SARAVANAKUMAR¹ AND K. NAGARAJAN²

^{1,2} Department of Mathematics, Sri S.R.N.M.College,
Sattur - 626 203, Tamil Nadu, India

E-mail: ¹ sskmaths85@gmail.com, ² k.nagarajan.srnmc@yahoo.co.in
(¹ Research Scholar, Manonmaniam Sundaranar University, Tirunelveli)

Abstract

Let $G = (V, E)$ be a (p, q) graph. A shortest path P is called distant divisor path if $l(P)$ divides q . A distance divisor graph $D(G)$ of graph $G = (V, E)$ has the vertex set $V = V(G)$ and two vertices in $D(G)$ are adjacent if they have the distant divisor path in G . In this paper, we found the distant divisor graph of standard graphs such as path, cycle, wheel, star and complete bipartite graph etc. We also found that some properties and characterizations for distant divisor graph. Further it is found that there is a formula for calculating the number of edges of a distant divisor graph of a cycle and path.

Key Words : *Distance, Distant divisor path, Distant divisor graph.*

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