A CHARACTERIZATION OF THE CENTERS OF CHORDAL GRAPHS.

JAMES M. SHOOK

ABSTRACT. A graph is chordal if it does not have any induced cycles with length greater than three. The distance $d(x,y)$ is the length of the shortest path from $x$ to $y$. The eccentricity of graph is $\epsilon(x) = \max\{d(x,y)|y \in V(G)\}$ and its radius and diameter are defined respectively as $\text{Rad}(G) = \min\{\epsilon(x)|x \in V(G)\}$ and $\text{Diam}(G) = \max\{\epsilon(x)|x \in V(G)\}$. The subgraph induced by all vertices of $G$ with eccentricity equal to the radius is called the center of $G$. This paper presents a short and simple characterization of the centers of chordal graphs.

Department of Mathematics, University of Mississippi, University, MS 38677
E-mail address: jmshook@olemiss.edu (J. Shook) and bwei@olemiss.edu (B. Wei)

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