1047-05-397   **Attila Por*** (`attila.por@wku.edu`), Department of Mathematics, Western Kentucky University, Bowling Green, KY 42101, and **Tobias Muller** and **Jean-Sebastian Sereni**. *Graphs with four boundary vertices and the Frame of a graph.*

A vertex v of a graph G is a *boundary vertex* if there exists a vertex u such that the distance in G from u to v is at least the distance from u to any neighbour of v. We give a full description of all graphs that have exactly four boundary points, which answers a question of Hasegawa and Saito. To this end, we introduce the concept of frame of a graph. It allows us to construct, for every positive integer b and every possible "distance-vector" between b points, a graph G with exactly b boundary vertices such that every graph with b boundary points and the same distance-vector between them is an induced subgraph of G. (Received February 02, 2009)