On Cordial set of Q_7

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For a graph $G = (V, E)$, a binary vertex labeling (coloring) $f : V(G) \to \{0, 1\}$, is said to be friendly if the number of vertices labeled 0 is almost the same as the number of vertices labeled 1. The friendly labeling $f : V(G) \to \{0, 1\}$ induces an edge labeling $f_* : E(G) \to \{0, 1\}$ defined by $f_*(xy) = |f(x) - f(y)|$ $\forall xy \in E(G)$. Let $e_f(i) = |{f_*}^{-1}(i)|$ be the number of edges labeled i. The friendly index set (or cordial set) of the graph G, denoted by $C(G)$, is defined by

$$C(G) = \{|e_f(1) - e_f(0)| : \ f \text{ is a friendly vertex labeling of } G \ \}.$$

In this talk, the cordial set of Q_7 will be presented.

Keywords: Cordial graphs; Cordial set; index function.