COUNTING RESOLVING SETS IN GRAPHS

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This talk deals with three parameters related to resolvability in graphs: the metric dimension, the upper dimension and the resolving number. We first answer a question raised by Chartrand and Zhang asking for a characterization of the graphs with equal metric dimension and resolving number. We also solve in the affirmative a conjecture posed by Chartrand, Poisson and Zhang about the realization of the metric dimension and the upper dimension. Finally, we establish a relationship between the resolving number and the diameter of a graph, giving rise to a surprising result on the realization of the resolving number.