

# Fuzzy Inverse Domination

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The inverse fuzzy (or fractional) domination number of a graph can be defined in a manner analogous to the definition of the inverse domination number, with fuzzy domination playing the role played by domination in the unfuzzy definition. It turns out that the inverse fuzzy domination number is well defined precisely in those cases when the ordinary inverse domination number is well defined – which is when the graph has no isolated vertices.

We work out some relations among the fuzzy and inverse fuzzy domination numbers and other fractional graph parameters, calculate the fuzzy and inverse fuzzy domination numbers for the complete  $r$ -partite graphs, and pose some problems.