

Jonathan Farley’s Mathematical Terror Theory: The Structure of Perfect Terrorist Cells with a Single Leader

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Terrorist cells are modeled as finite partially ordered sets. This paper determines the structure of the terrorist cell most likely to remain intact if a subset of its members is captured at random, provided that the cell has a single leader and no member has more than b immediate subordinates. Farley solved the problem for the case of binary posets ($b = 2$). Campos, Chvátal (whom the chairman of Stanford University’s computer science department once called “one of the two best young combinatorialists in the world”), Devroye, and Taslakian solved the problem assuming the poset was a tree such that no member has more than b immediate subordinates. Our result generalizes that of Farley and Chvátal *et al.*

Keywords: poset, cutset, maximal chain