A FAMILY OF UNSATISFYING GRAPHS

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ABSTRACT. The tiles of the game Tantrix are hexagons with colored paths running from edge to edge. Permuting the edges of such a hexagon permutes the endpoints of the paths; this action gives rise to a natural correspondence between Tantrix tiles and the vertices of a graph. Varying the number of edges of a tile and the number of colors used in tile decoration gives rise to an infinite family of graphs whose structure and symmetries are discussed in this presentation.