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Distinguishing Cube Families

A coloring of a graph with colors from $\{1, 2, \dots, d\}$ is said to be d -distinguishing if no nontrivial automorphism preserves the color classes. The distinguishing number of a graph is the smallest d for which it has a d -distinguishing coloring. If a graph G can be distinguished with 2 colors, we measure the *cost* of distinguishing to be the minimum number of vertices that need to be colored say red over all 2-distinguishing colorings. In this talk, we'll go over definitions and a few examples before looking at distinguishing hypercubes, augmented cubes, and powers of cubes.