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INDICATED COLORINGS OF GRAPHS

Let us consider a game in which two players color a graph. The first player (Indicator) selects a vertex and the second player (Painter) colors it in a proper way in one of available colors from a fixed set. The goal of Indicator is to color the whole graph and the goal of Painter is to spoil it. The smallest number of colors which is necessary for Indicator to win the game (regardless of the strategy of Painter) will be called indicated chromatic number. In the talk we will present a few facts about indicated chromatic number, in particular we will show some lower and upper bounds. We will also consider this number in some particular classes of graphs (for example planar graphs). We will also present a class of graphs for which the indicated chromatic number is equal to the chromatic number.