

CAO 21.11.17

Graph - Coloring Problem

Task: Given a graph $G = (V, E)$ (undirected)
find the smallest number $k \in \mathbb{N}$
such that there is a map
 $f: V \rightarrow \{1, \dots, k\}$ with

$f(v) \neq f(w)$ for all $\{v, w\} \in E$.

Such a map f is called a
"(proper node-)coloring of G ".

That smallest k is called the
"chromatic number of G ".