Let $G$ be a plane graph. Two edges are facially adjacent in $G$ if they are consecutive edges on a boundary walk of a face of $G$. Given nonnegative integers $r$, $s$, and $t$, a facial $[r, s, t]$-coloring of a plane graph $G = (V, E)$ is a mapping $f : V \cup E \to \{1, \ldots, k\}$ such that $|f(v_1) - f(v_2)| \geq r$ for every two adjacent vertices $v_1, v_2$, $|f(e_1) - f(e_2)| \geq s$ for every two facially adjacent edges $e_1, e_2$, and $|f(v) - f(e)| \geq t$ for all pairs of incident vertices $v$ and edges $e$. The facial $[r, s, t]$-chromatic number $\chi_{r,s,t}(G)$ of $G$ is defined to be the minimum $k$ such that $G$ admits a facial $[r, s, t]$-coloring. In the paper we show that $\chi_{r,s,t}(G) \leq 3r + 3s + t + 1$ for any plane graph. For some triplets $[r, s, t]$ and for some families of plane graphs this bound is improved. Specific attention is devoted to the cases when parameters $r$, $s$ and $t$ are small.

**Keywords:** plane graph, total coloring, facial $[r, s, t]$-coloring.

**AMS Subject Classification:** 05C10, 05C15.