

**MR2215588 (2006k:05090) 05C15**

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**Bounds for the  $b$ -chromatic number of some families of graphs. (English summary)**

*Discrete Math.* **306** (2006), *no.* 7, 617–623.

Given a graph  $G$ , the  $b$ -chromatic number of  $G$ , denoted by  $\varphi(G)$ , is defined to be the maximum integer  $t$  such that  $G$  has a proper  $t$ -coloring with the property that there exists  $\{x_1, x_2, \dots, x_t\} \subseteq V(G)$  such that for  $1 \leq i \leq t$  the color assigned to  $x_i$  is  $i$ , and  $x_i$  is adjacent to at least one vertex of  $G$  colored  $j$  for every  $j \neq i$ . It is straightforward to see that  $\chi(G) \leq \varphi(G) \leq \Delta(G) + 1$ . This paper establishes several sharp bounds on  $\varphi(G)$ , e.g. if  $\omega$  {resp.  $\theta$ } denotes the clique number {resp. the clique partition number} of  $G$ , then  $\varphi(G) \leq \theta^2 \omega / (2\theta - 1)$ .

Reviewed by *Michael O. Albertson*

### References

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*Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.*