

**(Proper) edge-coloring** of a graph = way of coloring the edges so that no two edges sharing a vertex have the same color.

**$k$ -edge-coloring** = an edge-coloring that uses exactly  $k$  colors.  
(If a  $k$ -edge-coloring of  $G$  exists, say that  $G$  is  **$k$ -edge-colorable**.)

**Edge-chromatic number** or **chromatic index**  $\chi'(G)$   
= smallest  $k$  so that  $G$  is  $k$ -edge colorable.