1077-05-2200   **Xiaofeng Gu*** (`xgu@math.wvu.edu`), Math Department, West Virginia University, Morgantown, WV 26506. *Graphic Degree Sequences and Graphs with a k-factor.*

A sequence $d = (d_1, d_2, \cdots, d_n)$ is graphic if there is a simple graph G with degree sequence d, and such a graph G is called a realization of d. Let k be a positive integer. A k-regular spanning subgraph of a graph is called a k-factor of the graph. In this paper, it is proved that a nonincreasing graphic sequence $d = (d_1, d_2, \cdots, d_n)$ has a realization G with a k-factor if and only if $(d_1 - k, d_2 - k, \cdots, d_n - k)$ is graphic. (Received September 21, 2011)