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Gregory S. Warrington* (gwarring@cems.uvm.edu), Department of Mathematics & Statistics, University of Vermont, 16 Colchester Ave., Burlington, VT 05401, and **Andrew Crites** and **Greta Panova**. *On the shape of separable permutations.*

Under the Robinson-Schensted correspondence, each permutation σ has an associated partition shape $\lambda = (\lambda_1 \geq \lambda_2 \geq \dots)$. Greene's Theorem says that the sum of the first k parts of λ gives the maximal total length of k disjoint increasing subsequences u^1, \dots, u^k of σ . However, it is not generally true that one can choose the u^i so that the length of u^i is λ_i for each i . Our main result is to show that the u^i 's can be so chosen when σ is a *separable permutation* (i.e., a 3142, 2413-avoiding permutation). We also give an application to shortest containing supersequences. (Received September 14, 2010)