1025-46-160   **Francisco Javier Garcia-Pacheco*** (`fgarcia@math.kent.edu`), Department of Mathematical Sciences, Kent State University, Kent, OH 44242. *The lineability problem for functionals.*

The lineability problem for functionals asks about the "possible" lineability of the set of norm-attaining functionals on a Banach space. We give some indications about the existence of a possible counterexample and we prove that every Banach space admitting an infinite dimensional separable quotient can be equivalently renormed to make the set of norm-attaining functionals lineable. In addition, we study some conditions related to the density of the set of non-norm-attaining functionals. (Received January 22, 2007)