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FIXED POINT THEORY FOR QUASI-CONTRACTION MAPS IN b-METRIC SPACES

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Abstract. In this paper, we first give a new fixed point theorem for quasi-contraction maps in b-metric spaces which gives a partial answer to a question raised in [S. L. Singh, S. Czerwik, K. Król, A. Singh, *Coincidences and fixed points of hybrid contractions*, Tamsui Oxf. J. Math. Sci., 24 (2008), 401-416]. Then we derive some fixed point results for contractive type maps. An example is also given to support our main result. Our results extend and improve some fixed point theorems in the literature.

Key Words and Phrases: b-metric spaces, fixed points, quasi contraction maps, Fatou property. 2010 Mathematics Subject Classification: 47H10, 54H25.

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