ON SOME F – CONTRACTION OF PIRI–KUMAM–DUNG–TYPE MAPPINGS IN METRIC SPACES

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Abstract:

Introduction/purpose: *This paper establishes some new results of Piri–Kumam–Dung-type mappings in a complete metric space.The goal was to improve the already published results.*

Methods: Using the property of a strictly increasing function as well as the known Lemma formulated in (Radenović et al, 2017), the authors have proved that a Picard sequence is a Cauchy sequence.

Results: New results were obtained concerning the F – contraction mappings of S in a complete metric space. To prove it, the authors used only property (W1).

Conclusion:The authors believe that the obtained results represent a significant improvement of many known results in the existing literature.

Key words: Banach principle, F–contractive mapping, metric space, fixed point.