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# SOME FIXED POINT RESULTS FOR A NEW THREE STEPS ITERATION PROCESS IN BANACH SPACES

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**Abstract.** In this paper, we introduce a three step iteration method and show that this method can be used to approximate fixed point of weak contraction mappings. Furthermore, we prove that this iteration method is equivalent to Mann iterative scheme and converges faster than Picard-S iterative scheme for the class of weak contraction mappings. We also present tables and three graphics to support this result. Finally, we prove a data dependence result for weak contraction mappings using this three step iterative scheme.
**Key Words and Phrases**: A new iterative scheme, strong convergence, weak contraction mapping.
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