

## EXISTENCE OF THREE WEAK SOLUTIONS FOR A CLASS OF DISCRETE PROBLEMS DRIVEN BY $p$ -LAPLACIAN OPERATOR

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**Abstract.** In this paper, by using a theorem based on variational method which was recently proved by Ricceri, we establish the existence of three weak solutions for a class of  $p$ -Laplacian discrete problems. Remarks and examples are provided to illustrate our result.

**Key Words and Phrases:** Discrete boundary value problem,  $p$ -Laplacian discrete equations, three solutions, critical point theory.

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