A Characterization of Weakly J(n)-Rings

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ABSTRACT: A ring R is called a *$J(n)$-ring* if there exists a natural number $n \geq 1$ such that for each element $r \in R$ the equality $r^{n+1} = r$ holds and a *weakly $J(n)$-ring* if there exists a natural number $n \geq 1$ such that for each element $r \in R$ the equalities $r^{n+1} = r$ or $r^{n+1} = -r$ hold.

We completely describe both classes of these rings R for any n, thus considerably extending some well-known results in the subject, especially that of V. Perić in Publ. Inst. Math. Beograd (1983) as well as, in particular, the classical description of Boolean rings when $n = 1$.