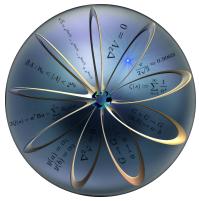

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proof that every subring of a cyclic ring is a cyclic ring

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The following is a proof that every subring of a cyclic ring is a cyclic ring.

Proof. Let R be a cyclic ring and S be a subring of R. Then the additive group of S is a subgroup of the additive group of R. By definition of cyclic group, the additive group of R is `http://planetmath.org/CyclicGroup`cyclic. Thus, the additive group of S is cyclic. It follows that S is a cyclic ring. $\square$