Structure Theorem

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Text follows Altman, Kleinman.

10. Cayley-Hamilton Theorem

Exercise 10.23

Proof. Let R be a ring, and \mathfrak{a} an ideal of R that is finitely generated and idempotent. We want to show that there is an idempotent element $e \in R$ that generates \mathfrak{a} , and that such e is unique.