

Dummit and Foote Exercises

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1 Problem 7.1.13

Lemma 1.1. $\bar{a} \in \mathbb{Z}/n\mathbb{Z}$ is nilpotent if and only if every prime divisor of n is also a divisor of a .

Proof. This is immediate from the classification of the nilradical as the intersection of all the prime ideals. \square