

Brandl, Rolf

Integer polynomials that are reducible modulo all primes. (English) [Zbl 0603.12002](#)
Am. Math. Mon. 93, 286-288 (1986).

In this note it is proved that for every positive integer $n \neq 1$, which is not a prime, there exists a monic irreducible integer polynomial of degree n such that it is reducible modulo all primes. However, it is known that every monic irreducible polynomial of prime degree remains irreducible modulo infinitely many primes.

Reviewer: [Nuria Vila \(Barcelona\)](#)

MSC:

[11C08](#) Polynomials in number theory
[12E05](#) Polynomials in general fields (irreducibility, etc.)
[11S20](#) Galois theory

Cited in **2** Reviews
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Keywords:

[irreducible integer polynomial](#); [reducible modulo all primes](#)

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