

Re: Split or Irreducible

Source: <http://sci.tech-archive.net/Archive/sci.math/2005-04/msg03228.html>

- *From:* magidin@xxxxxxxxxxxxxxxxxxxx (Arturo Magidin)
 - *Date:* Thu, 21 Apr 2005 20:36:14 +0000 (UTC)
-

In article <1114115251.075767.199410@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, <jamesdickerson00@xxxxxxxxxxxx> wrote:

>Let E be a subset of the Complex numbers and assume $r=e^{(2*\pi*i)/p}$ be
 >in E where p is a prime number. Let a be arbitrary in E. Show that
 >the polynomial $f(x)=(x^p)-a$ is irreducible or splits in $E[x]$.
 >
 >I know that r must be the key to the problem but I don't know how to
 >use it.

E is a "subset" of C? Just a subset? We're not assuming closed under products, sums, anything?

I assume you mean "subfield"... Assuming that:

If u is a root for f(x), how much is f(ru)?

 =====
 "It's not denial. I'm just very selective about
 what I accept as reality."
 --- Calvin ("Calvin and Hobbes")
 =====

Arturo Magidin
magidin@xxxxxxxxxxxxxxxxxxxx

.

-
- *Follow-Ups:*
 - ◆ **Re: Split or Irreducible**
 ◇ *From:* jamesdickerson00
 - *References:*
 - ◆ **Split or Irreducible**
 ◇ *From:* jamesdickerson00

Re: Split or Irreducible

- Prev by Date: ***Re: JSH: Interesting behavior***
- Next by Date: ***can anybody show me the math why differential entropy of a mixed-type distribution is -infinity?***
- Previous by thread: ***Split or Irreducible***
- Next by thread: ***Re: Split or Irreducible***
- Index(es):
 - ◆ ***Date***
 - ◆ ***Thread***