

Problem of the Week-6: A Cool Fact About Finite Rings

1. Show that in a finite commutative ring with unity (multiplicative identity), every non-zero element is either a zero divisor or a unit (i.e. has a multiplicative inverse)

2. Show that this property need not hold in an infinite ring.

Posting Date 3/30/12. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 4/13/12.