



planetmath.org

Math for the people, by the people.

Rees factor

Canonical name	ReesFactor
Date of creation	2013-03-22 13:05:46
Last modified on	2013-03-22 13:05:46
Owner	mclase (549)
Last modified by	mclase (549)
Numerical id	4
Author	mclase (549)
Entry type	Definition
Classification	msc 20M12
Classification	msc 20M10
Related topic	Ideal3

Let I be an ideal of a semigroup S . Define a congruence \sim by $x \sim y$ iff $x = y$ or $x, y \in I$.

Then the *Rees factor* of S by I is the quotient S/\sim . As a matter of notation, the congruence \sim is normally suppressed, and the quotient is simply written S/I .

Note that a Rees factor always has a zero element. Intuitively, the quotient identifies all element in I and the resulting element is a zero element.