

## INTISARI

### RING PRESIMPLIFIABEL DAN RING PRESIMPLIFIABEL LEMAH

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Diberikan ring komutatif  $R$  dan diambil  $a, b$  elemen-elemen di dalam ring  $R$ . Elemen  $a$  dan  $b$  dikatakan berelasi asosiasi jika memenuhi  $a \mid b$  dan  $b \mid a$ , artinya  $b = sa$  dan  $a = rb$  untuk suatu elemen  $r, s \in R$ . Relasi asosiasi yang digeneralisasi pada suatu ring dapat memotivasi terciptanya pengertian ring presimplifiabel dan ring presimplifiabel lemah. Pertama-tama akan diberikan definisi mengenai relasi asosiasi sangat kuat, relasi asosiasi reguler kuat, ring berasosiasi sangat kuat, dan ring berasosiasi reguler kuat. Selanjutnya akan ditunjukkan sifat-sifat dan keterkaitan ring presimplifiabel dan ring presimplifiabel lemah dengan ring suku banyak dan ring deret pangkat.

Kata Kunci: Ring berasosiasi sangat kuat, Ring berasosiasi reguler kuat, Ring presimplifiabel, Ring presimplifiabel lemah, Ring suku banyak, Ring deret pangkat.

## ABSTRACT

### PRESIMPLIFIABLE AND WEAKLY PRESIMPLIFIABLE RINGS

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Let  $R$  be a commutative ring and  $a, b \in R$ . Define  $a$  and  $b$  to be associates if  $a \mid b$  and  $b \mid a$  implied  $a = rb$  and  $b = sa$  for some  $r, s \in R$ . The generalized associates to the ring is the idea for definitions of presimplifiable and weakly presimplifiable rings. First of all, we provide definitions of very strong associates, strong regular associates, very strongly associate ring, and strongly regular associate ring. Furthermore, the properties and the correlations of presimplifiable and weakly presimplifiable rings will be shown by using the polynomial and the formal power series rings.

**Keywords:** Very strongly associate ring, Strongly regular associate ring, Presimplifiable ring, Weakly presimplifiable ring, Polynomial ring, Formal power series ring.