Nama : Tarisa Dwi Septia

NIM : 205410126

Tugas 1

1. Jika W = rajin, P = belajar, Q = mhs. Jawablah :

* QW2

Jawab :

QW2 = {mhsrajin, mhsrajin }

* Prefik (WP)

Jawab :

Prefik (WP) = { ε, r, ra, raj, raji, rajin, rajinb, rajinbe, rajinbel, rajinbela, rajinbelajar}

(PQ)R

Jawab :

(belajarmhs)R = (elajarmhs)R b

= (lajarmhs)R eb

= (ajarmhs)R leb

= (jarmhs)R aleb

= (armhs)R jaleb

= (rmhs)R  ajaleb

= (mhs)R rajaleb

= (hs)R mrajaleb

= (s)R hmrajaleb

= shmrajaleb

* (QP)R

Jawab :

(mhsbelajar)R = (hsbelajar)R m

= (sbelajar)R hm

= (belajar)R shm

= (elajar)R bshm

= (lajar)R ebshm

= (ajar)R lebshm

= (jar)R alebshm

= (ar)R jalebshm

= (r)R ajalebshm

= rajalebshm

* |WPQ|

Jawab :

|WPQ| = {rajin, belajar, mhs}

= 3

1. Jika A = {ha, hi, ε} dan B = {!, ?, ε}

* AB = {ha!, ha?, haε, hi!, hi?, hiε, ε!, ε?, εε}
* BA = {!ha, ?ha, εha, !hi, ?hi, εhi, εha, εhi, εε }
* A3B = {}