a*={E/N, a, aa, aag. } 2. The tenion of two regular enquessions to also a segular enquession RuRz ; R, URz = (R, +Rz) lowesterion is also RE. : RIORE > (RIORE) inclusing h and of we regular expressions. sets of strings in an algebric fushion at = {a, aa, aas} 1. Any terminal symbol i e symbols 2, E, · Regular Conjuesos are reseal for representing RE "RJR* $a^{\dagger}a = a^*$)a,b,c.... ^, ¢ Regular Gupressions Clowne of RE is Rules Lustain 1 indo 8 3 Set .

 $\tilde{\alpha}$

(ner Es alesceube the following sets as Regular Expressions: ADDEN'S THEOREM (FA -> NE) 4) {0,1,2} : 0 on 1 on 2 R= 0+1+2 a) [1, ab] Enamples: 86

3) fabb, a, b, bbay: abb on a out on bba is personnt.

B

(70

R = abb + a+b+ bba. 4) {v, 0, 00, 000}...

Po Si : R: O* all strings trat fair be formed who + 7 - 8

5) { 1, 11, 111, 1...}

Part Folenties of Regular luyersing

", OUR = R

\$ = empty set

4) ++R = R

\$.R + RA = \$

6

CR = RE = R

60

B

E* = E sourch q* = E

T

6) R*.R* "R*

5) R+R = R

12) RP+B) = RP+RB ound (P+Q)R=PR+BR

11) (P+0) = (p*0*)* - (p*+0*) *

10) (PQ*) P = P (QP)*

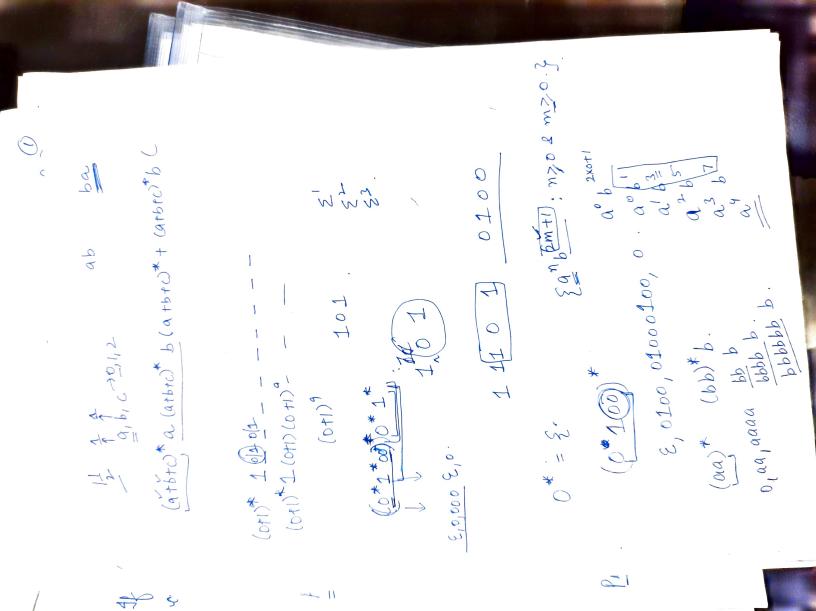
9) C+RR* = C+R*R= R*

8) (R*)* = R*

T) RR* = R*R

I+RP dy = faa, ab, ba, bb, aca, bbb, abob. I 2) danging actenting of length attact 2. danguage acceptuit sturng of length enouteys. a(a+b) + b(a+b) =>(a+b)(a+b) R2 = (a+b)(a+b) (a+b)*

R2 = ateast 2 auguing more engine soerign RE for following language over 3) danguage succepting wearing of length Rs: et at btactab + bb + ba. d3: fe, a, b, aa, bb, ab, ba} " NEOKENI (III R1 = aa + ab + ba + bb = (e+a+b) (e+a+b) d, = { aa, ab, ba, bb} atmost 2.



ARDENS ob ba * (a+6)