	CSCI 119 L95 11					
0.	prove & w w ∈ Zi*, rev(w) = w's is non-regular					
	consider the strings					
	E, 9, 6, 96, 69, ach, bag					
	each string is its own equivalence class					
	at b abt ba					
	this leads to an infinite # of equivalence classes, making it non-					
	regular					
	, G, = S-1 ABS AB					
	AngAla					
	$B \rightarrow bA$					
	1) aabaab & L(b)?					
	SH*ABSH*AHQAHQ					
	ABS HB HGAHAAHA					
	ABSHSHABSHA HOAHO					
	$H(3) \rightarrow B \rightarrow D \rightarrow D$					
	string about he accepted if the last charms a "b"					
	String want be accepted it the approximation of					
	a) a ca a ha f 1 ((a) ?					
	2) aaaaba EL(6)? CH*ABH*AH*AH					
	aA HaA Ha					
	a4H*a4Ha					
	and High to a					
	ABH+BH*6A					
	bA + da					
	agaaba & L(G)					

3 7	$C_{n} = S \rightarrow ABS \mid AB$
	C,= S -> ABS AB A -> aA q B -> bA
	3) aabbaa EL(G,)?
	SHABSHAHQAHAHQ
	ABSHBH6AHAHa
	a abbaa & L(G)
	count get to another "6" after immediately reading a "6"
Dept.	the state of the s
-	
18	4) 1 2 2 1/2 1/3
Parameter State Control of the Contr	4) abaaba & U(G)?
-	SHABS HAHa
	ABS HBHBAHa
	ABSHSHABS HAHO
	ABS HBH6AHa
	Fig. 1.5
	abaaba $\in L(G_i)$

	r=ab*(ba+6+bb)*+aba+1					
2.	2. G2 = E expr 1 + & fact > Lefact > Lexpr					
	Efact > H - (par > Lexp>					
	\rightarrow $\angle atom > \mapsto \Sigma \mid 0 \mid 1$					
	<pre><par> -> (<exp>) <par> < star></par></exp></par></pre>					
	<star> H* (exp><star></star></star>					
-	30-					
	Compared to the poly of the po					
	(express) (Colottexe)					
	a spar formation					
	Texporting that states to the state of the s					
	Entants that there to the total					
-	b coxpor + efect + coxpor 2 coxpors 1					
	a sexp. Lemon.					
	b' b b					
	produces					
	ab*(ba+b+bb)*+aba+7					
	3. ab*(ba+b+bb)*+aba+2					
<u> </u>	G=SHaBPlabal1					
	G=BHbBE					
	PH>60P16P166P18					
·						
	wolnd and the second of the se					
. / 1						

4. {aibaili20, jz1}
$S \mapsto a X a$
$X \mapsto bX \mid b$
convert to CNF
SHaxa SHaW
XHXIb WHXY
XHbX-b YHa
The state of the second
5. 2 = {9,6}
S-) aSb bSa SS E
$ab: \Sigma^* \to \mathbb{N}$
Theorem for all wesself star w is balanced if w is balanced
Def a string welstuz isbalanced if
0 a(sw) = 6(sw)
Derivation
given a String agabbb
SHash Hasse Haasber agable H
Proof
and a contract
Case 2: &SB HX aSbB
assume 2Sp is balanced

	# 5 continued					
case 1:6	$a(\alpha S_{\beta}) = b(\alpha S_{\beta})$	a(E)=0				
		a(aw) = 1+ a(w)	b(aw) = b(w)			
	a(d) + a(p) = b(d) + b(p)	a(bw) = a(w)	b(bw) = 1+b(w)			
_	ž	a(Sw) = a(w)	$b(S\omega) = b(\omega)$			
	Case 2-25p HdbSap					
	assume ΔS_{β} is balanced $b(\Delta S_{\beta}) = Q(\Delta S_{\beta})$ $\downarrow \qquad \qquad \downarrow$ $b(\Delta) + b(\beta) = Q(\Delta) + Q(\beta)$					
	Cose 3: LSBHUSSB					
	[ase4: 2Sp Hap					
			7			
6	$S \rightarrow bS Sq aSb E$ what set	is generated by	this granmar.			
	By strong Induction prove any we {a,b}* has a derivation in 66 $a(w) = \# a \le \text{ in } w \qquad \text{with } w$ $b(w) = \# b \le \text{ in } w$ $a(w) = 0 \qquad b(\varepsilon) = 0$ $a(aw) = 1 + a(w) \qquad b(aw) = b(w)$					
-						
	a(bw) = a(w) $b(bw) = 1+b(w)$					
	$a(s_{w}) = a(w) \qquad b(s_{w}) = b(w)$ $case 1: w = \varepsilon$ $case 2: w > 0$ $case 2: w > 0$					
	Claim					
		7				
12						