	Ц. 1. 4/2
	Homework #2
	Problem 1
1.	A = & wllength of w, lwl, is a multiple of 33
	$\rightarrow (2) \xrightarrow{O} (2) \xrightarrow{O} (2)$
0	B = \(\) 11 13
2.	D - 211,1113
	$\rightarrow (2_{o}) \longrightarrow (2_{1}) \rightarrow (2_{1}) \rightarrow (2_{1})$
- N. 13	0 (2,1)
	0 (24)
3.	(= { w/w contains an even number of 0's and contains exactly two 1's}
1	
	M = { wlw contains an even number of 0's }
1 1	
7	
11	$M_1 \longrightarrow ((q_0)) \longrightarrow (q_1)$
	0
led 1	M2 = { wlw contains exactly two I's }
The same	
	M -> (9) -> (92) -> (93) -> (95)
	C = M3 = M, N M2

Cintinued	
Crudidasa	$M_3 \longrightarrow (q_0, q_1) \longrightarrow (q_0, q_3) \longrightarrow (q_0, q_3) \longrightarrow (q_0, q_5)$
	0110 0110 0110
	(21,92) -7 (21,93) -7 (21,93) -7 (21,95)
	Problem 2
	Prove that regular languages are closed under the set difference
	operation. That is, if A and B are regular languages, then A-B
	is also a resular language.
-1 (55-4)	
	Proof: We assume that A and B are regular languages, and we shall
	prove that regular longuages are closed under the set difference
	oper-tion, A-B, by using construction (direct proof).
	A-B un be written as ANB. If B is a regular language,
	then the complement of the set B is also a regular
	language by the closure of regular languages (complement). If
9	Set A is a regular language and set B is a regular
	language than the intersection of sats A and & is late
	a regular language by the closure of regular languages (intersection).
	and her he the selected of regular largeliges Companies and on your
	This proves that ANB is a regular language, when A and B
	are regular languages ANB is equal to A+B which proves
	that regular languages are closed under the set difference
	operation. I A ATAMAN IS A PRINTER BY
	are it is larger an include a court for it is which found
	that I gray larguages are about under love to the fill make the