C06 210	Worksheet 5	Dylan Kapnias (u18108467)	
Question 1			
Step 1:	M.: ->O ->O		
	M2: -0-1-0		
Step 2:	M3 (00): ->O ->O	<u>e</u> 00000	
, ,	M4 (11): -0 100	<u>e</u> <u>0</u> 1 0	
Step 3:			
	Me (0 ∪ 1) : → 0	70 1 60	
	M7(0011):		
	<i>E</i> 3	<u>e</u>	
Step 4:	M& (OUI)* :	000	
	<u>_</u>	Peno 1.00	
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NFA:	E DO POE	E 20 ° 6	<u> </u>
	@ E + O 1 D Y E	000000000000000000000000000000000000000	<u>e</u> 0 1 0
	€		
Question 2			
Lq = E U	a. La Ub. La		
= E U L Lq = L = B	a. Lq Ub. Lq q (aUb) *C = (aUb)* ∈	Std. Equivalence 6 Lecture 9 Lemma	
<u>la</u> = (aUb)*	, Std. Equivalence 2	
Question 3			
Lq = q. Lq	Ub. Lq (Ub) U Ø *C = (aUb)* Ø	Std. Equivalence 6	
Lq = L = B	*C - (aUb)*Ø	, Lecture 9 Lemma	
Lq = Ø		, Std. Equivalence 1	

Q	ues!	cior	. 4																						
	Lq	=	٩	· Lq	U	Ь.	Lr																		
	Lr	_	e	U (a . L - (a	ر ل ع U	Ь) Р	L۳						St	·d .	Fau	iu	alenc	e (3					
	Lr Lr	=	L	=	₹*	C	=	(a(JP)	*∈			,	Le St	ctur d.	e c Eqi	l liv	alenc Lemm alence	na J						
:.	لم لم						(0	Ub)*				,	Su	bsti	tuti	ion.	, of	L-						
	Lq	=	L	= -	8 *⊂	, <u>-</u>	q,	, Р ((qU	P),	÷ >		,	Le	ctu	re	9	Lem	ρm						