MAN	<41= <41+ x* c42) A(4)= A(4) + 2A(42)
	<41A147 = <41 A1412 + x* <421 A1412+ <41 A1x 42>+ x* 2421 A1242
	6918197 = 6911819,7 + x 6921819,7 + < 9,1817 927 + x* 645/1/245
	when 2=1 SYIAI 4)> + CYZIAI4)> + CYZIAI42> + CYZIAI42>
	= < 4181412 + < 9218142> + < 418142> + < 4218142>
	when 2= i 24HATT) + - i 2421A197> + i 411A192> - i 2421A192>
	<4+B191>+-1<421B142>+1<4,1B142>-12<421B142>
	- pivide out 1 and C4/14/42> = C4/18/42>
10	>< 4/4 4> = < 4/14/4 > + 2* < 43/4 4/7 +2< 4 2/4/42>
	<4/14/4/2> = (141) + 2/45) *=> 141> +2*(45)
	$\langle \Psi ^{*} = \langle \Psi_{1} + \lambda \langle \Psi_{2} \rangle$
	L414147 = (411+26421) (A142+ 2*A142>)
	= (914191) + 2<4214+141>+ 2* <914+142>+ *2 <4214+142>
	(1) <4,1ATP, >+ 2* <451A1 6,2 + 2(A1A165) + 2* 54514165
	x (42/4/4, > +2 (4, 4) 42) = 2 (42/4/4) + x (4, 14+142>
	for 7=1, They equal eachother
	for 2=i -i LAZIALAZ + iCAIAIAZ - iCAZIA+1AZ - iCAIA+1AZ
A ANTHONY	fully of
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A ALEKS (COMMON COMMON	
BASII NEI IPAGO	
an edition of the state of the	
DOODOWA	

OLD DOCUMENTS	9B) Since in 9a we Proved That (4,181427 = (4,141427
	for all 142 written as a l. C. of Basis
energies to Anna Land	14) = 14,5 + 2142) for 2=1 + i compx cons).
and year Action	as such for all 14> <41A14> = <41B14>
A CONTRACTOR OF THE CONTRACTOR	Bearing A cent & act on UN The Science
and the second second	Such Tet Te inner product of Eyland
	AND/BIDS TO THE Some as The other
and the second s	Thos, if A acts on 147 The some as is
	ac +5 on 147 \$ 142, Then ALYD= B/42
	and Tws A=B

	1 2 1 e 2 B e 2 T = (e2 A) (B(-A) e -2 A) + (Be-2 A) (A e 2 A)
Alpan Mark	A The A Carlos a Consider A Carlos Repair 1
A roughting	EnEABJEA = EA (AB-DA) EA
En page and Com-	ext (B(-A)e21 + A(R)=24))
Carl	=> e^A (-BA + AB) = 2A => e^A (AB-RA) = 2A = e^A [A,B] = 24
CH13	2
The second	The Taylor Serial for & (a) = Z to f (a) 2"
A. Mariana	f(x) = + (e2 Be2A) + 1 (e3 Be2A) 2+ 2 (e2 Be2A) 22+
The solution	f(0) = 1 (eof Beof) +1 (eof Beof) + = (eo Beo) 2 +
	f(1)= B+ (et (AB=BA)et)+ = (ex (AB-BA)ex)"
	82 [e24 (AB-BA)e2A = (e24) ((AB-BA) (-A) e2A) + Ae2A (AB-BA) e2A
	en (AB-BA)(-A) en + A(AR-BA)enA)
THE EXECUTE LAND	(AB-BA)(A) + A (AB-BA)(e-24
	SUBBACE [A, ZA, B,]]
	Taylor Exposion Det Sillator
	f(v)= B+ [A,B] + = [A, EA, B]] + = (ea Be-2+) 1/2 = 1
MULAPAKOS-	and Tws ZA, A, EA, BJJJ
	and Two $[A,A,EA,B]$ $[A,A,EA,B]$ $[A,B]$ $[A$
	Jays and
	f
~	

12a	[A, [A, B]] = A(AB-BA) - (AB-BA)(A) =0
	= B(AR-BA) - (AB-BA) B
	Show That [A, eB] = ZezB[A, B]
	"Since CA, EA, BJ7 = 0, The Taylor expansion
	YOUR EBE = B + [A, B] + 0 + 0 + 0 + = B+[A, B]
	1, Rus 2A, e28 (= Ae2B - e28 A
	126[A,B] = 22B(AB-RA)
	7 e A e = A + 2 [A, B] + 0 +> Divide out e 78
	era = Aera + zera A, B] -> Subtract first tem
	PA-AET = RETEAR
	> GRearrage to Be Aers - ers A = [A, EB]
1.9.1	SA, e > E] = 2 e 2 E [A, B]
14.40	1 - 1 24 28 -2 (A+B)
12/20	T = e/e26 (-(A+B)e-x(A+B)) + e264+ (e24 + 467/e28)
	-(A+B)(2+ 28 (A+B) (A+B) (A+B) (A+B) (A+B)
	The car of control
and the second s	
The state of the s	
- Total Control Contro	

	A
158	$F(\lambda) = e^{\lambda A} e^{\lambda B} e^{-\lambda(A+B)}$ $A+B$
	5 = ent ab = 2 (A+B) (-(A+B)) + e 2 (A+B) (e 2 B e 2 B + e 2 B A e 2 A)
	e-ACAHB) end end (end Be- x4 + A)
	e24 28 e 2 (A+8) (E74 8 e - 7 A - R + A - A)
	$ \frac{\hat{F}(\lambda)}{\hat{D}^{+}} = e^{\lambda A} e^{\lambda B} e^{-\lambda (A+B)} (-(A+B)) + e^{-\lambda (A+B)} (e^{\lambda A} e^{\lambda B} + e^{\lambda B} A e^{\lambda A}) $ $ e^{\lambda A} e^{\lambda B} e^{-\lambda (A+B)} (-(A+B)) + e^{-\lambda (A+B)} (e^{\lambda A} e^{\lambda B} + e^{\lambda B} A e^{\lambda A}) $ $ e^{\lambda A} e^{\lambda B} e^{-\lambda (A+B)} (e^{\lambda A} e^{\lambda A} - e^{\lambda A} + A - A) $ $ e^{\lambda A} e^{\lambda B} e^{-\lambda (A+B)} (e^{\lambda A} e^{\lambda A} - e^{\lambda A} + A - A) $ $ e^{\lambda A} e^{\lambda B} e^{-\lambda (A+B)} (e^{\lambda A} e^{\lambda A} + A - A) $ $ e^{\lambda A} e^{\lambda B} e^{-\lambda (A+B)} (e^{\lambda A} e^{\lambda A} + A - A) $ $ e^{\lambda A} e^{\lambda B} e^{-\lambda (A+B)} (e^{\lambda A} e^{\lambda B} + A - A) $
	TEABI
	Thus $\frac{1}{\sqrt{2}} = \lambda \Sigma A, B T = \Sigma \Delta$
150	By solvit equation in 12B, derive BCH formula ent = extra = [1] (R) = 2 (A, 8) f(a)
	$rac{\partial f}{\partial f} = \lambda (A, B) f(A)$
	$f(x)^{-1}\partial f = \left(x[A,8] \partial x \right)$
	In (FG)) = [A] 20x=> [A,B] (\frac{1}{2}\text{2}^2+C>) 22 \frac{1}{2}[A,B] + C[A,R]
	$f(x) = e^{x^{2} \frac{1}{2} \sum_{k=1}^{2} \frac{1}{k} $
	e 28 e 2(A+8) = e 2 (A+8) 2=1 piriole e 2(A+8)
	$e^{A} = e^{\frac{1}{2} [A,B]} = e^{\frac{1}{2} [A,B]} = e^{A+B} = e^{A+B} = e^{\frac{1}{2} [A,B]} = e^{1$
	ete = et [AB] et B Thus et e B = et B e 2 [A, B]

10.1	Z(On A On> = Z(Yn 1 A) Yn > where ElPn>3, and ElYn>Esca
13 A	
	Corrider cuesting Both 192 and 145 OF Bosis rectors
	6 127 Basis.
*	14>= 1/4> = \$120> {xn14} = 2 4n1xn7
	and Pn
	10> = 110> = [xn> (xn) 0> = [9n xn)
	and also consider the operator relation $\hat{A} = \hat{A}\hat{A}$
	A= A1 = Z A14n3<4n1 = 1xn>< 4n1
	and 1xx
	= = 1 / 1 / 2 / 2 / 2 / 2 / 2 / 2 / 2 / 2 /
	(χ_n)
	-> insatiff it Back into Def. OF TY(A) for 143 and 103
	E(On) Xn7(On) On = 2 (4n) xn>(4n) are equal
	on Some Basica (XII) for on matrix Elements
130	TY (AR) = E < On (AR) On > = E < On (A) ME) < Melblon > Sor Othorornal S (45)?
	- = E < 4/2/18 Ph> < On A 4/2 > = E < 4/2/18 A 4/2 > = Tr (BA)
	consider the second of EIRES
	при
	A to the second of Alexander and the second of the second
13c	
	for 197 and 195 writte in orthogram to sis ElPu73.
	16> = 9/2 and 14 > - 4/19/2 = Tr (< P/1 (Pn > < 4/19/2))
	= Z(4,12n) (an14n) Son of Texts alorg Dieford
	of outer Product 14>C41