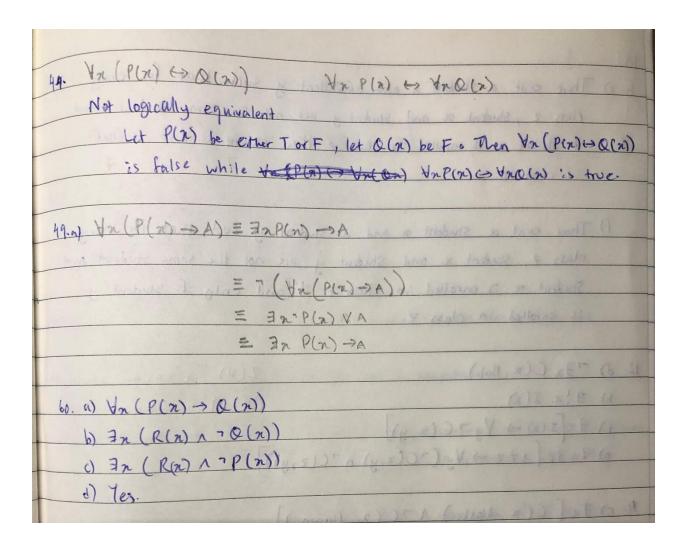
14	
6. c) = 72 N(2) There doesn't exist a stude	ent in your school who has visited
- 1 7 N(2) There exists a student in your school who has not visite the	
e) - Yx N(x) Net all shorts in your school have visited worth throta	
1) Vn - N(n) All Students in your school have not visited North Pakota	
	G VF
1. b) 72 (P(x) 17Q(x))	10 Jan 10
- 377 R (P(n) V O(n))	A PP
	2 5 1 2 2 3
20. e) ∃n (¬p(n)) ∧ ∀n((n<0)→p(n))	Pow {-5,-3,-1,1,3,5}
	45 8 21
P(-5) v-P(-3) v-P(-1) P(n) true for neco	(ald b) d
V7P(1) V7P(3) V7P(5) P(-5) NP(-3) NP(-1)	
(7P(-5) v 7P(-3) v 7P(-1) v 7P(1) v 7P(3) V7P	(5)) A (P(-5) AP(-3) AP(-1))
24.6) In M(n) Mon) is Thehas seen a foreign movie"	
In (M(x) 1 S(x)) S(x) is it is a somebody in your class"	
	CH
e) The Vn (Q(x) SM(x) is " n is a student in your class"	
∀n (S(n) → Q(n)) Q(n) :>	"n can solve quadratic egn"
40. b) Ha R(z) -> [Ha (-p(x)) 1 Va (-g)	((4
	A
let. p(x): Dietectory n in file system can be opened	
9 (y) : file y can be closed	
R(Z): System error Z have been detented	
	olea



45.
() I such that for every
class a ship of and shipperty are not the some
if shadent a is enpolled in class a then student is also enpolled
12 Class 2.
f) There exist a student or and a student y such that for every
class 7 student x and student y are not the same student and
Student on is enrolled in class 7 if and only if student y
is enrolled in class Z.
-1 \ "
2- d) = I(x) " x has an Internal com
h) 3! x I(x) ((n,y) n and y heave chooked
b) ∃x[I(x) → Yy ¬ C(x, y)] (o) → over the internet"
m) Fr Fz [n≠z → Vy (~C(2,y))]
4. c) In [C(n, Alaska) 1 C(n, Hawaii)]
d) Vn 7y C(n,y)
e) In Iy C (2, y)
f) = 22 = 2 (2 + y \ C(2, y) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
24. a) In Vy (2+y=y)
There exists a real number or that when added to any real
number y, the result is the value of the real we number y.
1) Vn Vy ((2≠0) ∧(y≠0) €> (ny≠0))
non-zero if and only if their product is non-zero.
mont serve it and only it their product is non-zero.

32 d) Ty =x =x (T(2,y,2) v Q(n,y))]
$=\exists y \forall x \forall z (\neg T(x, y, z) \land \neg O(x, y)]$
(n, y, E) 1 (n, y)
34. Harry ((n+y) -> Hz ((x=n) v (z=y)))
True: { OII}
False: RR
38. b) =2 C(2) where C(2) means" 2 have seen a computer"
Yn C(x)
All students in this class have seen a computer
d) Fray Yz ((x,y,z) where ((x,y,z) means "student re has been
in y room of 2 building."
Yn Yy 3z ((n,y, €)
All students in this class have not been in any norm of at least
one building on campus.
The proteing the same of the s
42- a(b+c)= ab+ac
Va Vb Vc [a.(b+c) = (a.b)+(a.c)]
Varbret a Core