

Submission 1.2

I consider myself RAAAJ II

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1 Problem 1

For all x and y , where x is a person and y is a time, and x is down at time y and x is out at time y , there are no z such that z is a person and z knows x at time y .

2 Problem 2

x = something
 W = being well
 E = ending well
 $\forall x(Ex \implies Wx)$

3 Problem 3

x = something
 E = eternal
 T = temporal
 S = seen
 $\forall x(Sx \implies Tx)$
 $\forall x(\neg Sx \implies Ex)$

4 Problem 4

x = something
 A = circle A
 B = circle B
 $\forall x(Ax \implies Bx)$
 $\exists x(Bx \implies Ax)$

5 Problem 5

x = something
A = circle A
B = circle B
 $\forall x(Ax \implies \neg Bx)$
 $\forall x(Bx \implies \neg Ax)$

6 Problem 6

x = yourself
y = anybody else
L = loving
 $\forall x \forall y (\neg Lx \implies \neg Ly)$
 $\exists x (Bx \implies Ax)$

7 Problem 7

x = a band
n = 'N Sync
B = best band
 $\forall x (x=n \implies Bx)$

8 Problem 8

x = somebody
y = anybody
L = x loves y
 $\exists x \forall y (Lxy)$

9 Problem 9

x = somebody
y = anybody
F = x is for y
 $\exists x \forall y (Fxy)$

10 Problem 10

x = scrooge
y = anybody
L = x doesn't love y
 $\forall y (Lxy)$

11 Problem 11

x = anybody
s = shallow
K = know themselves
 $(x \neq s) \implies \neg K$

12 Problem 12

M = has a mother
x = somebody
 $\forall x(Mx)$

13 Problem 13

x = something
y = something
P = is a pig
 $\exists x \exists y (Px \wedge Py \wedge (x \neq y))$

14 Problem 14

x = something
y = something
z = something
P = is a pig
 $\forall x \forall y \forall z (Px \wedge Py \wedge (x \neq y) \wedge ((z=x) \vee (z=y)))$

15 Problem 15

x = something
y = something
z = something
P = is a pig
 $\forall x \forall y \forall z (\neg (Px \wedge Py \wedge Pz) \wedge (x \neq y) \wedge (x \neq z) \wedge (y \neq z))$