  
 (**Э**x)(P(x) ^ Q(x,a))

для a = 1:

якщо x=1, тоді   P(x) ^ Q(x,a) = P(1) ^ Q(1,1) = 0 ^ 1= 0;

якщо x=2, тоді   P(x) ^ Q(x,a) = P(2) ^ Q(2,1) = 1 ^ 0= 0;

|  |  |  |  |
| --- | --- | --- | --- |
| 3.1a | (Qx) F[x] v G = (Qx)(F[x] v G) | 3.1b | (Qx)F[x] ^ G = (Qx)(F[x] ^ G) |
| 3.2a | ~ ((**V**x)F[x]) = (**Э**x)(~ F[x]) | 3.2b | ~ ((**Э**x)F[x]) = (**V**x)(~F[x]) |
| 3.3a | (**V**x)F[x]^(**V**x)H[x]=(**V**x)(F[x]^H[x]) | 3.3b | (**Э**x)F[x]v(**Э**x)H[x]=(**Э**x)(F[x]vH[x]) |
| 3.4a | (Q1x)F[x]v(Q2x)H[x]= (Q1x)(Q2z)(F[x]vH[z]) | 3.4b | (Q3x)F[x]^(Q4x)H[x]= (Q3x)(Q4z)(F[x]^H[z]) |

(**Э**x)(P(x) ^ Q(x,a)) = 0

(Эx)(~((Эy)P(x,y)) --> ((Эz)(Q(z) --> R(x)))

(Эx)(~((Эy)P(x,y)) --> ((Эz)(Q(z) --> R(x))) = (Эx)(((Эy)P(x,y)) v ((Эz)(Q(z) --> R(x)))

(Эx)(((Эy)P(x,y)) v ((Эz)(Q(z) --> R(x))) = (Эx)(((Эy)P(x,y)) v ((Эz)( ~Q(z) v R(x)))

(Эx)(((Эy)P(x,y)) v ((Эz)( ~Q(z) v R(x))) = (Эx)(Эy)(Эz) (( P(x,y)) v (( ~Q(z) v R(x)))

(Эx)(Эy)(Эz) (( P(x,y)) v (( ~Q(z) v R(x))) = (Эx)(Эy)(Эz) (P(x,y) v ~Q(z) v R(x))