

t4_goedelcp
(TMFfamNb2hvH1uRzJUx1gzi8X7AncqmDwqJ)

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Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k3_cqc_lang : \iota \Rightarrow \iota$ be given. Let $v1_henmodel : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_henmodel : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_goedelcp : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_goedelcp : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_valuat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_henmodel : \iota \Rightarrow \iota$ be given. Let $k3_henmodel : \iota \Rightarrow \iota$ be given. Let $r1_henmodel : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_cqc_lang : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_qc_lang1 : \iota \Rightarrow \iota$ be given. Let $k2_valuat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_valuat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow (\\ & \forall X2.(m2_funct_2 X2 (k3_qc_lang1 X0) X1 (k2_valuat_1 X0 X1)) \Rightarrow \\ & (\forall X3.(m2_subset_1 X3 (k9_qc_lang1 X0) (k3_cqc_lang X0)) \Rightarrow \\ & (\forall X4.(m1_valuat_1 X4 X0 X1) \Rightarrow ((r1_valuat_1 X0 X1 (k6_cqc_lang \\ & X0 X3) X4 X2) \Leftrightarrow (\neg r1_valuat_1 X0 X1 X3 X4 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((m1_qc_lang1 X0) \wedge ((v1_henmodel X1 X0) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k3_cqc_lang X0)))))) \Rightarrow (\forall X2. \\ & (m1_henmodel X2 X0 X1) \Rightarrow (m1_valuat_1 X2 X0 (k1_henmodel X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_qc_lang1 X0) \Rightarrow (m2_funct_2 (k3_henmodel X0) (k3_qc_lang1 \\ & X0) (k1_henmodel X0) (k2_valuat_1 X0 (k1_henmodel X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (\neg v1_xboole_0 (k1_henmodel X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (k3_cqc_lang\ X0))) \Rightarrow ((v1_henmodel\ X1\ X0) \Leftrightarrow (\forall X2.(m2_subset_1 \\ X2\ (k9_qc_lang1\ X0)\ (k3_cqc_lang\ X0)) \Rightarrow (\neg(r1_henmodel\ X0\ X1\ X2) \wedge \\ (r1_henmodel\ X0\ X1\ (k6_cqc_lang\ X0\ X2)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (k3_cqc_lang\ X0))) \Rightarrow ((v1_goedelcp\ X1\ X0) \Leftrightarrow (\forall X2.(m2_subset_1 \\ X2\ (k9_qc_lang1\ X0)\ (k3_cqc_lang\ X0)) \Rightarrow ((r1_henmodel\ X0\ X1\ X2) \vee \\ (r1_henmodel\ X0\ X1\ (k6_cqc_lang\ X0\ X2)))))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1\ X0) \Rightarrow (\forall X1.(m2_subset_1\ X1\ (k9_qc_lang1 \\ X0)\ (k3_cqc_lang\ X0)) \Rightarrow (\forall X2.((v1_henmodel\ X2\ X0) \wedge (m1_subset_1 \\ X2\ (k1_zfmisc_1\ (k3_cqc_lang\ X0)))) \Rightarrow (\forall X3.(m1_henmodel \\ X3\ X0\ X2) \Rightarrow (((v1_goedelcp\ X2\ X0) \wedge (v2_goedelcp\ X2\ X0)) \Rightarrow (((v1_goedelcp \\ X2\ X0) \wedge ((v2_goedelcp\ X2\ X0) \wedge (\neg(r1_valuat_1\ X0\ (k1_henmodel\ X0) \\ X1\ X3\ (k3_henmodel\ X0)) \Leftrightarrow (r1_henmodel\ X0\ X2\ X1)))) \vee ((r1_valuat_1 \\ X0\ (k1_henmodel\ X0)\ (k6_cqc_lang\ X0\ X1)\ X3\ (k3_henmodel\ X0)) \Leftrightarrow (r1_henmodel \\ X0\ X2\ (k6_cqc_lang\ X0\ X1)))))))))) \end{aligned}$$