

t25_cqc_the1

(TMJgwCyjFc2xT7ZsELjLuLK1NPPgJWZpsLu)

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Let $m1_qc_lang1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_cqc_lang : \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_cqc_the1 : \iota$ be given. Let $r2_cqc_the1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_cqc_the1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_9 : \iota$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((X0 \neq k1_xboole_0) \Leftrightarrow (r1_xxreal_0 np_1 (k3_finseq_1 X0))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge ((v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (3)$$

Assume the following.

$$\forall X0. (m1_qc_lang1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_cqc_lang X0))) \Rightarrow (\forall X2. (m2_finseq_1 X2 (k2_zfmisc_1 (k3_cqc_lang X0) k2_cqc_the1)) \Rightarrow ((r2_cqc_the1 X0 X1 X2) \Leftrightarrow ((X2 \neq k1_xboole_0) \wedge (\forall X3. (m1_subset_1 X3 k5_numbers) \Rightarrow (((r1_xxreal_0 np_1 X3) \wedge (r1_xxreal_0 X3 (k3_finseq_1 X2))) \Rightarrow (r1_cqc_the1 X0 X2 X3 X1))))))) \quad (4)$$

Assume the following.

$$k2_cqc_the1 = \text{ReplSep} (\text{toset} (\lambda X0 : \iota. m1_subset_1 X0 k5_numbers)) (\lambda X0 : \iota. r1_xxreal_0 X0 np_9) (\lambda X0 : \iota. X0) \quad (5)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_relat_1 X1)) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ (k3_cqc_lang X0))) \Rightarrow (\forall X2.(m2_finseq_1 X2 (k2_zfmisc_1 \\ (k3_cqc_lang X0) k2_cqc_the1) \Rightarrow ((r2_cqc_the1 X0 X1 X2) \Rightarrow (r1_xxreal_0 \\ np_1 (k3_finseq_1 X2)))))) \end{aligned}$$