

l25_cqc_the3 (TMFWQYkyd- Jae47kRigdTtE9pH6SWyV3NV6o)

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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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_cqc_the1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_cqc_lang X0))) \Rightarrow (r1_tarski X1 (k1_cqc_the1 X0 X1))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((r1_tarski X0 X1) \wedge (r1_tarski X2 X3)) \Rightarrow (r1_tarski (k2_xboole_0 X0 X2) (k2_xboole_0 X1 X3)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = k2_xboole_0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((m1_qc_lang1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k3_cqc_lang X0)))) \Rightarrow (m1_subset_1 (k1_cqc_the1 X0 X1) (k1_zfmisc_1 (k3_cqc_lang X0))) \quad (4)$$

Theorem 1

$$\forall X0.(m1_qc_lang1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_cqc_lang X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k3_cqc_lang X0))) \Rightarrow (r1_tarski (k4_subset_1 (k3_cqc_lang X0) X1 X2) (k4_subset_1 (k3_cqc_lang X0) (k1_cqc_the1 X0 X1) (k1_cqc_the1 X0 X2))))))$$